Greene County Comprehensive Plan





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INTRODUCTION

The Greene County Comprehensive Plan is the guiding document for the county, intended to integrate a wide range of subjects into a coherent vision that may best manage traffic, accommodate forecasted household and job growth, and provide open space and recreational opportunities and other vital services in the county. In accordance with the Code of Virginia, the Comprehensive Plan is reviewed every five years by the Planning Commission and adopted by the Board of Supervisors in order to take current conditions and citizen input into account.

COMPREHENSIVE PLAN VISION STATEMENT

A visioning process was a first step in determining the wishes of county residents. During the 2010 Comprehensive Plan update, this vision guided the development of this Comprehensive Plan. The citizens of Greene County focused on a vision statement, which follows:

Greene County will enhance the quality of life enjoyed by its residents by preserving the County's rural character and natural beauty and by guiding growth and development. Greene County will achieve this vision by:

- Conserving farmland
- Planning for diverse housing needs
- Planning for various modes of travel
- Supporting existing businesses
- Attracting low impact, environmentally friendly industry
- Encouraging tourism
- Creating employment opportunities for its citizens
- Providing quality schools and recreational areas, and
- Conserving the County's natural resources and cultural and historical heritage.

CODE OF VIRGINIA REQUIREMENTS

The *Code of Virginia* establishes the broad parameters for preparing and adopting a comprehensive plan. The *Code* states, in part:

§ 15.2-2223. Comprehensive plan to be prepared and adopted; scope and purpose.

The local planning commission shall prepare and recommend a comprehensive plan for the physical development of the territory within its jurisdiction and every governing body shall adopt a comprehensive plan for the territory under its jurisdiction.

In the preparation of a comprehensive plan, the commission shall make careful and comprehensive surveys and studies of the existing conditions and trends of growth, and of the probable future requirements of its territory and inhabitants. The comprehensive plan shall be made with the purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the territory which will, in accordance with present and probable future needs and resources, best promote the health, safety, morals, order, convenience, prosperity and general welfare of the inhabitants, including the elderly and persons with disabilities.

The comprehensive plan shall be general in nature, in that it shall designate the general or approximate location, character, and extent of each feature, including any road improvement and any transportation improvement, shown on the plan and shall indicate where existing lands or facilities are proposed to be extended, widened, removed, relocated, vacated, narrowed, abandoned, or changed in use as the case may be.

This Greene County Comprehensive Plan was developed to meet the Code of Virginia requirements for a comprehensive plan. First and foremost, however, this comprehensive plan has been developed by the Greene County Planning Commission, the Board of Supervisors and the residents of the county.

GREENE COUNTY: FROM PAST TO PRESENT

Greene County is a relatively small county in the piedmont region of central Virginia, nestled into the eastern slopes of the Blue Ridge Mountains. These mountains, once the size of the Rockies, have slowly eroded into their present form and are one of the oldest mountain ranges in the world. The unique characteristics of this geology have led to an incredibly diverse ecosystem of plant and animal life, extending from the exposed ridges of the highest mountains to the gently sloping forests and plains along the Rapidan and other rivers. All of the water that falls on Greene County flows into either the



James or the Rappahannock rivers and ends up in the Chesapeake Bay. The Blue Ridge Mountains and the surrounding lands have had a great influence on the history of the county, and remain a valued natural resource and scenic backdrop.

Native American tribes likely foraged through Greene County in search of game, and the Monacan tribe eventually settled in the flood plains to raise corn, squash, and other crops. John Lederer, a German colonist, became the first known European to explore the land during a

1669 expedition. He returned a year later to scale the Blue Ridge Mountains with the help of Indian guides, disproving rumors that North America could be traversed in eight days of travel on horseback. For many years after this discovery, Greene County would consequently remain relatively unknown to European settlers.

By the early 18th century, Lieutenant Governor Alexander Spotswood was drawn to the area to mine iron from the hematite rocks in the region, enticing groups of German settlers to join him. He led a group of horsemen on the famous "Knights of the Golden Horseshoe" expedition, likely through what is now Swift Run Gap into the Shenandoah Valley. Not long after this, most of the fertile land in the county, a total of about sixty thousand acres, had been offered as grants under the English King George I. The original landowners had to prove themselves as productive entrepreneurs or they would have to forfeit their land. The Octonia Stone near Stanardsville marks the corner of an original parcel from 1722 with an eight figure below a cross to indicate the eight landowners given the grant. All eight of these grantees did not meet the legal conditions and lost their property. The best known of the original grantees was William Monroe, who became very prosperous while living on his land. Although he himself never learned to read or write, he established a trust to fund the education of poor children in the community.

The earliest roads in Greene County followed the paths Native Americans had left behind, especially along riverbanks and through mountain passes. Farmers growing tobacco, the predominant crop in the early years, needed river access with enough width to transport products. Otherwise, paths for riding horseback would suffice. The most important high-traffic roadways to emerge were connections to

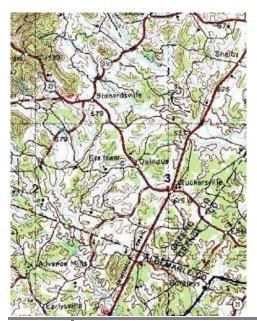
Fredericksburg, along what is now State Route 609, and to Charlottesville, along Celt Road and Advance

Mills Road. A road across the pass at Swift Run Gap was approved by the Virginia colony in 1764, which is present day US 33, eventually extended to become an important route across the county. Although railroads were an important transportation mode in the 19th century, no tracks were ever planned through Greene County. US 29 was not aligned in its current form and paved until 1932, when an automobile route was deemed necessary to connect Charlottesville with towns in northern Virginia.

The Town of Stanardsville was established in 1794 by William Stanard, a grandson of one of the original grantees. He subdivided 45 acres of his land into half acres lots, platted them along an even street grid. Within a year, a tavern was built to meet the needs of travelers on their way from Richmond over the mountains. Two original houses remain on the east side of Stanardsville Run. By the early 19th century,



the town had grown into a thriving community with numerous services. The federal-style Lafayette Hotel was built in 1840. Originally a hotel and restaurant, the property has changed hands numerous times and served many different functions, before being restored to its original intent in more recent years. Ruckersville started as a collection of farmers and it had developed a small business district by the early 20th century, most of which was removed with the building of US 29. The road however would facilitate new businesses in Ruckersville, and Corner Store to the south, during the latter years of the



20th century. Other historic hamlets in Greene County were Burtonsville, Quinque, Celt, and Amicus. Early communities in the mountainous western portion of the state generally gathered around individually placed churches and stores, which served as everything from post offices to medical clinics.

Greene County was officially designated as an independent county in 1838, named after Revolutionary War hero Nathanael Greene. The land had originally been part of Orange County, but travel to the Town of Orange was too burdensome for residents in the mountainous regions of the western portion. Thomas Davis, a Virginia state senator, presented a petition to separate the "upper district" from the rest of Orange County and the General Assembly accepted.

Stanardsville was selected as the new county seat. It was, and still is, the only officially recognized town in Greene County. The first Board of Supervisor's meeting was held in 1871.

During the Civil War, Greene County held support troops for Stonewall Jackson's Shenandoah Valley Campaigns and served as access to and from the Shenandoah Valley. A brief skirmish between local residents and General Custer's Union troops centered on a Union effort to capture Confederate cannon near Charlottesville. The aftermath of the war, combined with the depletion of the soil from tobacco farming, contributed to an economic depression throughout the whole state, and Greene County in particular. However, within a few years conditions gradually began to improve. The countryside became dotted with the county's characteristic wood-sided farmhouses, roofed in standing-seam metal, and picturesque rural churches. Homes with Queen Anne, Victorian, Italianate, and Federalist architectural features began to fill in the Town of Stanardsville.

Construction of William Monroe School in Stanardsville was completed in 1925, becoming the first major school, and the first bus route to Ruckersville began a year later. Before the consolidation of the school district, education was conducted in homes, small private academies, or in one-room public schoolhouses. Because of difficulties in transportation, mission schools were also established in the



mountainous areas to meet the needs of children with less accessibility. The contemporary Blue Ridge School occupies the building of one of ten missions established by Rev. Frederick Neve in Greene County. William Monroe School remained segregated until 1956, when it was required to integrate through federal legislation. By the 1960's, three elementary schools were built in Stanardsville, Ruckersville, and Dyke, and William Monroe was rebuilt and reconstituted as a high school. Rapid population growth in the later years of the 20th century has required the construction of several

other schools or additions.

The Shenandoah National Park was admitted into the National Park System in 1935, after a decade of fundraising and advocacy from private foundations and the State of Virginia. Virginia men from Franklin Roosevelt's Civilian Conservation Corp crafted the fine stonework of the Skyline Drive, running along the ridge of the park. About six hundred families, 64 of which were within Greene County, were asked to leave the land, on the grounds of "condemnation" of what was presumed to be substandard living conditions, before the federal government would assume ownership of the park. Many resisted, resulting in a number of legal battles, which were eventually lost. The sites chosen by the federal government for the relocated residents were mostly in the Haneytown area. The relocation effort was generally a failure for a number of reasons, and most of the houses were vacated and sold off. The park has grown to become one of the most popular scenic destinations in the country. A Blue Ridge Heritage

Project is now underway to honor those displaced families by erecting memorials in each of the eight counties bordering the park.

Greene County hit its population growth spurt rather suddenly in the 1970's. The County had only grown by 12% in the 130 years before 1970. Then between 1970 and 2015, the county grew by 265%. This growth has brought economic opportunities to residents in Greene County, but it has also introduced significant changes upon the landscape and way of life of the community. Road improvements, including a Route 33 bypass around Stanardsville, have enhanced the flow of automobile traffic throughout the county. Most of the new development has been residential in character, with over five thousand single-family homes constructed during this period. Agriculture, once the primary economic engine of the county, has been in steady decline for several years because of conversion of land for more intensive uses, agricultural economics, and an aging population of traditional farmers.

Greene County is very much a community in transition, a reality that underscores the importance of ensuring that whatever the county evolves into reflects the wishes and aspirations of those who live here.

FUTURE LAND USE

INTRODUCTION

Future land use decisions have a far-reaching impact on the county. This chapter is an important guide to planning for future residential, commercial and industrial growth in Greene County and the ancillary services and amenities needed to support it. Economic growth and protection of quality of life, so important to county residents, hinges on a sound future land use strategy.

Many factors are at play in achieving a sound future land use strategy: growth areas that have adequate water and sewer capacity and availability; future traffic patterns and the ability of existing and planned roads to handle new development; the availability of alternative modes of transportation; the ability of county resources (schools, library, parks, law enforcement and emergency services) to accommodate new growth; decent and affordable housing for all residents; positive economic expansion; and stewardship of the land. The other chapters of this comprehensive plan are intended to provide this information and set the stage for an informed approach to land use.



This chapter begins by evaluating the existing land use conditions and future trends. State population and job growth projections are used to estimate the potential land use needs for development over a twenty year time horizon. A few general implications of land use are given to tie these findings into other elements of the comprehensive plan. The next section defines the future land use growth area and place types that are designated to receive a majority of new growth. Maps are provided to show exactly where the growth area and place types are located.

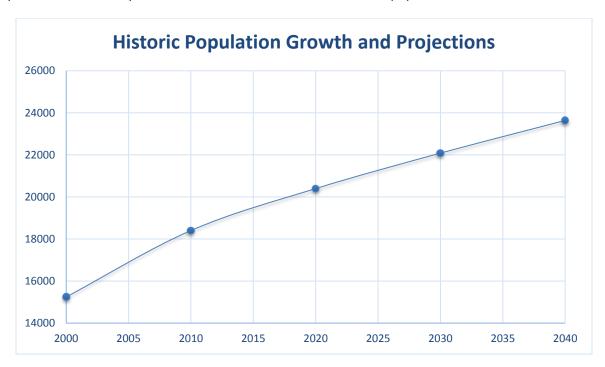
The third section provides some broad design guidelines for growth areas, tailored to each place type. If the future land use growth area answers the question of where development shall be located, the design guidelines suggest how the development can be designed to match its neighborhood. Design guidelines are to be flexible rather than strictly prescriptive. Additionally, the place types are related to the State code requirements for Urban Development Areas. The next section describes guidelines for any growth that may occur in the rural areas, as well as a set of preservation and mitigation tools to help maintain the rural character of the county.

Finally, a section on goals and implementation strategies provides tools for how the community's vision can realistically be achieved.

EXISTING CONDITIONS

GROWTH TRENDS

Greene County has been undergoing a transition over the last few decades from a rural community to a largely suburban community. The County's population has been climbing since 1970, and during the 1990's Greene County growth rates were among the highest in Virginia. While the annual growth rate has slightly lowered to an annual average of 1.31 % between 2010 and 2015, population growth is expected to continue steadily into the future. The Virginia Employment Commission projects a county population of 22,082 by 2030, which is 15% more than the current population of 19,162.



Source: U.S. Census Bureau, Virginia Employment Commission

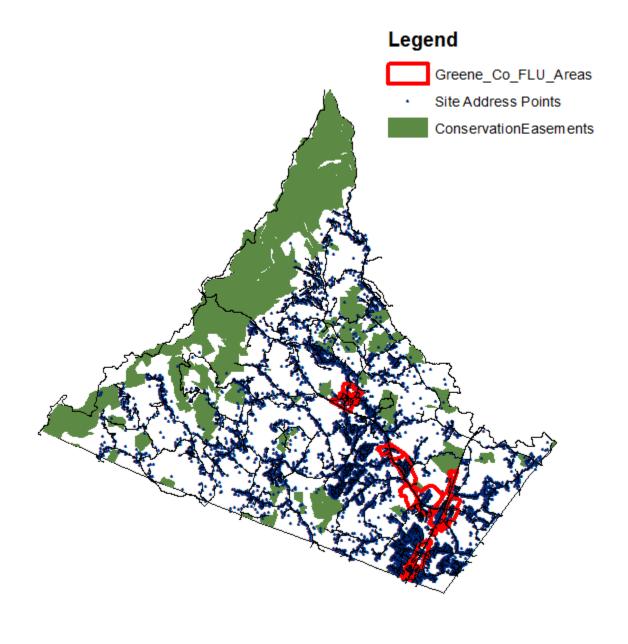
While this ongoing growth is reflected in commuting behavior and economic conditions, the land use and development patterns of Greene County are the most obvious impacts. Most of the new development from this growth has been residential. A total of 7, 991 dwelling units currently exist in Greene County, and over half of them have been built within the last 20 years. An average of 133 detached single family building permits were issued per year between 2000 and 2015. In 2008 the number of building permits dropped to 101, a downturn in real estate activity not atypical of counties throughout the country during this period

Multi-family building permits have significantly increased since 2009. There have been 302 multi-family dwelling permits issued from 2010-2015, signaling possible changes in both markets and population growth patterns in this region.

LAND USE PATTERNS

Although new development has occurred throughout the county, 61% of structures (commercial and residential) constructed since 2014 has occurred within the designated growth areas, a measure of the success of County efforts to focus growth in those areas.

Greene County-Dwelling Units-2016



Over the last 20 years, commercial development has also occurred, but it currently comprises a smaller share of land use than residential. An even smaller share of land in Greene County is used for industry and warehousing. According to data from the Virginia Employment Commission, a total of 3,590 Greene County jobs existed in 2015, resulting in 1 job for every 5.33 residents. This is a clear indication of significant out-commuting to other jurisdictions, Albemarle County and the City of Charlottesville in particular. Almost all major employment centers are located along the US 33 and US 29 corridors. The largest employers are the Greene County Public Schools, Wal-Mart, and the County itself. The County Administration and School Board are located in the Town of Stanardsville.

Employment in Greene County is expected to grow along with population over the next 20 years. For the purposes of planning for future scenarios, the recent Multimodal Corridor Study for the US 29 and US 33 Development Areas in Greene County assumed growth in jobs would match projected growth in population for the next 25 years at 1.96%, a growth rate slightly higher than the regional prediction suggested by the Virginia Employment Commission. However, the growth of employment for the last 20 years suggests another approach. Jobs have been growing faster than population and this trend is likely to continue. A job growth rate of 2.55% per year fits historic trends by maintaining a stable ratio of 5.58 people per job.

These projections are relevant to land use, because they help Greene County set planning goals in the context of a realistic expectation for both growth and the distribution between different kinds of growth. The following table represents a composite of each of these projections for the year 2030. Households are determined assuming the 2010 U.S. Census for Greene County household size of 2.7 stays the same.

	2015	2030	% Change
Population	19,162	22,082	15
Households	7, 991	11, 110	39
Jobs	3, 590	5, 367	49

It is worth noting that these findings merely project objective, historic trends into the future. They should not be read as predetermined and outside the bounds of control in any way. For example, the Economic Development chapter of this comprehensive plan outlines goals and strategies for increasing commercial growth in the county, and this Land Use chapter includes the wish to retain the rural character of the community. Land use policies should be realistic but they need not only react to current trends. To a certain degree, they are able to shape the trends in a desired direction.

IMPLICATIONS OF LAND USE

Concentrating growth in compact, mixed-use places and focusing residential growth into designated areas corresponds well with Greene County's goal of increasing the number of jobs and commercial development. Residents of Greene County have strongly expressed that the preservation of the county's

rural character is central to their definition of livability. Businesses also benefit from being clustered along certain corridors rather than scattered, where transportation costs of deliveries and commuting are increased. Furthermore, mixed-use places encourage activity around the clock, which enhances security and allows businesses to spread out the peaks in their service times.

Concentrating growth also helps meet the county's fiscal objective of providing municipal services and infrastructure without incurring an unreasonably high tax burden for residents of the county. A comprehensive survey of research on providing local government services around the country found that on average, compact growth cost 15% less for local and State transportation infrastructure, and 8-15% less for provision of water and sewer service. Even emergency services and law enforcement operate more efficiently when officers and staff are able to travel shorter distances between places.

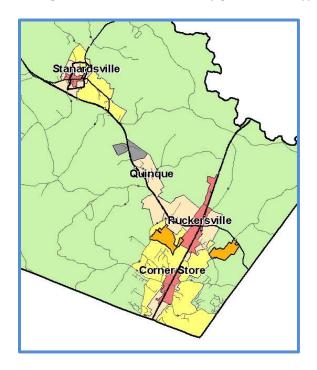
The availability of sufficient clean water is essential to the growth and subsistence of Greene County, both for supporting residential and commercial growth in the designated development areas and for protection rural areas. Based on projections made by WW Associates for a Regional Water Supply study in April 2008, the area's water demand was to catch up with supply by 2009. The peak daily flow was 1.2 Million Gallons per Day by 2010, which requires the water treatment plant to operate near full capacity. The study recommended a new pump storage reservoir in Greene County to meet this need. The form new growth takes can be just as important to the water supply as the sheer quantity of new growth. Focusing new residential and commercial development into the existing water and sewer service area protects limited groundwater supplies throughout the county and ensures developers that municipal water service can be counted on.

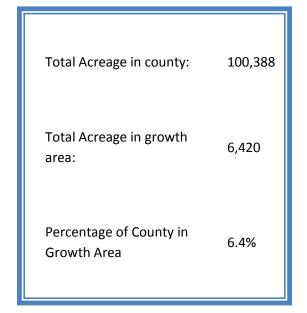
Finally, the connection between land use patterns and the use of the transportation network has been well documented. The *Multimodal Corridor* Study considered both of these elements in conjunction with each other to project future land use patterns and necessary transportation infrastructure improvements. Accordingly, goals and objectives from the transportation chapter of this plan are closely aligned with those from the land use chapter.

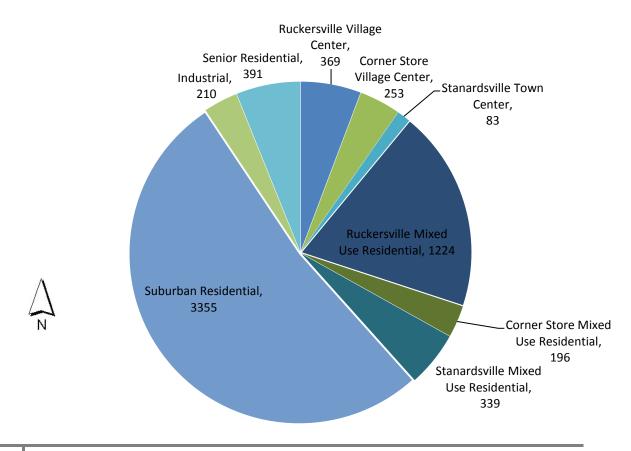
FUTURE LAND USE FRAMEWORK

This Comprehensive Plan lays out a future land use vision that includes a discrete growth area and the retention of significant rural areas. Within the growth area, five development types are identified: Mixed Use Village/Town Center; Mixed Use Residential; Suburban Residential; Senior Residential; and Industrial. These development types range from the most focused and concentrated growth in the Mixed Use Village/Town Center to a more dispersed residential area, Suburban Residential. Both Mixed Use Residential and Senior Residential allow for higher density residential development and the Mixed Use Residential calls for small-scale commercial and civic uses as well. Prevailing community wishes are for the county to retain its rural character and to preserve and promote the county's agricultural heritage. Guidelines for the Rural Areas call for the voluntary use of clustering and conservation subdivisions as well as creative ways to buffer rural development from the passerby.

Of the county's approximately 100,000 acres, 6,420 acres are in the growth area, leaving the remaining acreage rural. The breakdown by growth area type is:







The three areas within the growth area that focus growth in the most intense way are: Ruckersville Mixed Use Village Center; the Corner Store Mixed Use Village Center; and the Stanardsville Town Mixed Use Center. Stanardsville is the smallest and Ruckersville the largest. The fundamental framework for these three areas calls for flexibility in the proportion of non-residential to residential but a general rule of thumb calls for an approximately 80% non-residential and 20% residential split. Within the non-residential areas of these centers, a variety of uses are appropriate, primarily commercial and office. Appropriate residential units vary from apartments, including apartments above stores, to single family homes.

Within the Mixed Use Residential areas a mix of residential and commercial and civic is intended. Appropriate commercial and civic are those that specifically serve the nearby residential population. Within the Mixed Use Residential areas, the predominant use is residential following a roughly 80% residential and 20% commercial split.

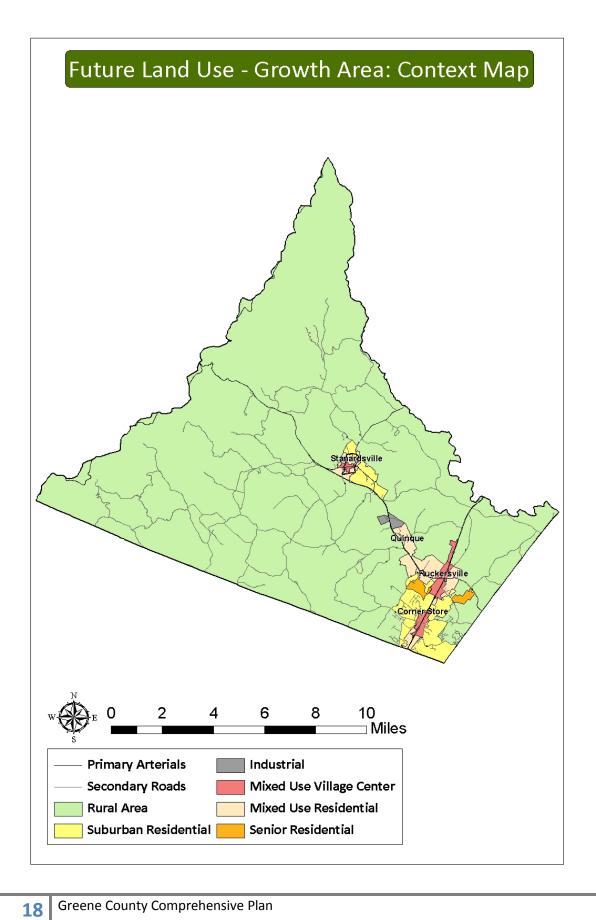
The Suburban Residential category is primarily single family residences, although the incorporation of passive open space into these areas is encouraged. The intent of the Suburban Residential tier is to create a rural, lower density residential area that is close to services, jobs and commerce.

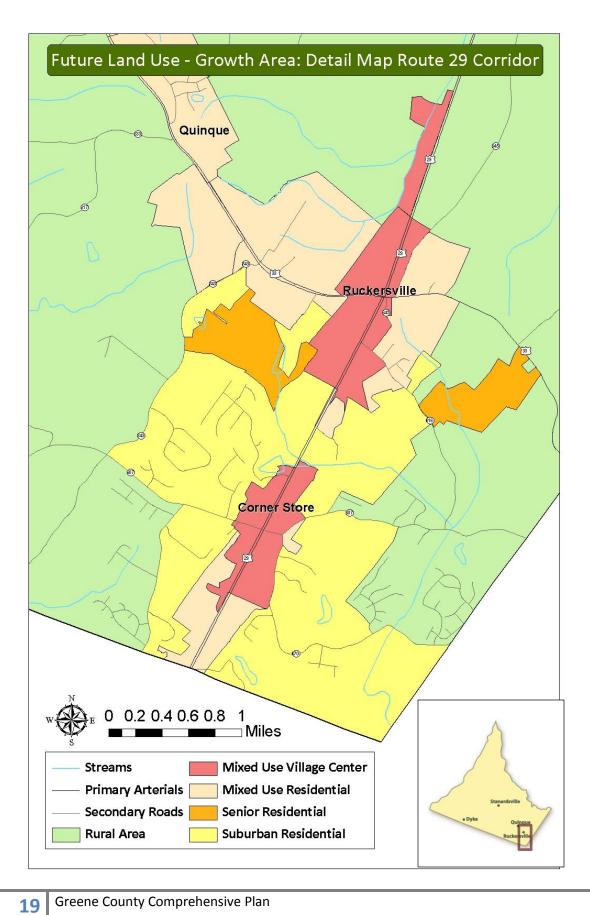
The abiding principle for all growth area categories is the walkability of new and retrofitted development. The "walkability circle" is ¼ mile in radius and represents an approximately 5 minute walk. It is optimal for the center of the walkability circle to have an identifiable non-residential use. This may be as simple as a small park or civic green or in higher intensity applications a commercial or civic core.

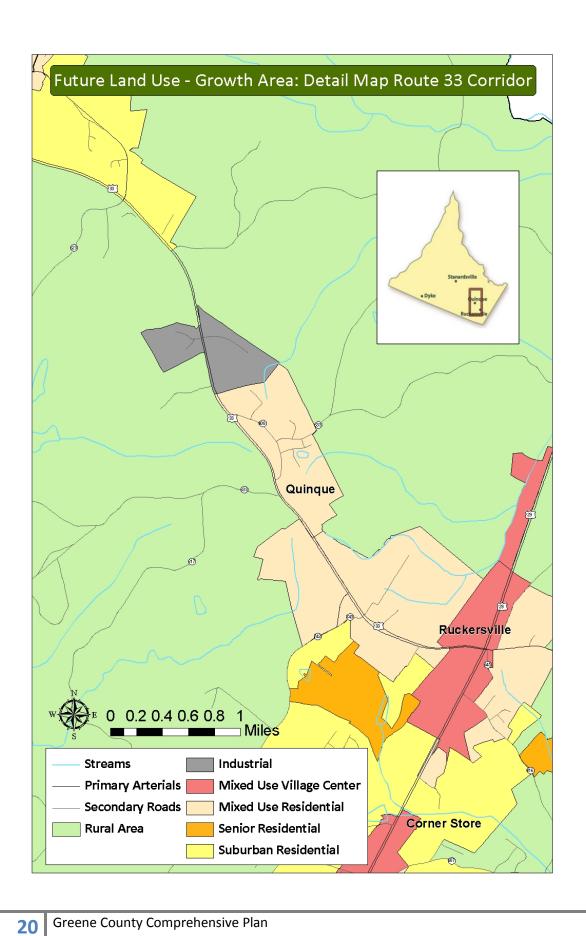


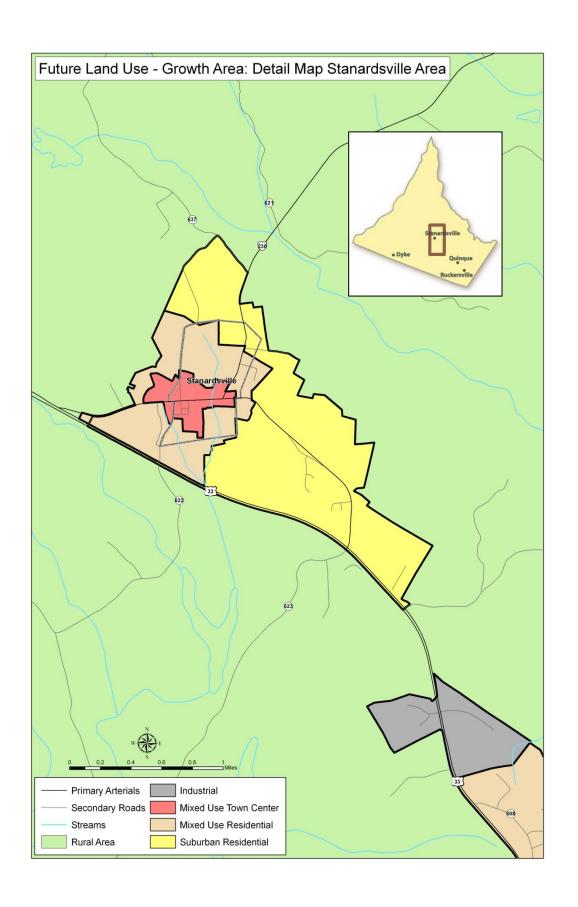
FUTURE LAND USE MAPS

The following maps show the county as a whole and then a series of three maps that focus on the specific areas within the designated growth area. These maps detail the Route 29 corridor encompassing Ruckersville and Corner Store; the Route 33 corridor between Ruckersville and Stanardsville; and the greater Stanardsville area.









DEVELOPMENT GUIDELINES

This section presents the guidelines that describe basic parameters to follow when development occurs within the growth area and similarly within the rural areas. The Code of Virginia Urban Development Area requirements are discussed in relation to the development guidelines. Flexibility and appropriateness of use are to be used as principles for decisions on new development. Next is an overview of the fundamental planning tools to be considered in implementing the county's future land use vision.

GUIDELINES FOR GROWTH AREAS

The Code of Virginia § 15.2-2223.1 states that "the comprehensive plan shall further incorporate principles of new urbanism and traditional neighborhood development." New urbanism and traditional neighborhood development refer to patterns of development and transportation that are evident in almost all American towns built before the middle of the 20th century. The following section applies such principles to Greene County.

The Town of Stanardsville serves as an ideal model for traditional neighborhood development. The street grid of the original plats subdivided by William Stanard is highly connected. The roads are fairly narrow and the turning radii at intersections are minimal. The blocks are short, allowing pedestrians to walk all around town easily. Modern development, built exclusively around the needs of automobiles, is often much more disconnected, necessitating the use of busy thoroughfares in order to get around. This makes walking or riding a bicycle dangerous and unpleasant and often increases congestion for drivers.

The buildings along Main Street in Stanardsville come right up to the sidewalk, giving pedestrians something to see and offering the opportunity for people to stop and chat. Some places are commercial establishments, others are offices, and there are residences very nearby. By way of contrast, most modern development is strictly separated by different uses. Many people are finding that they enjoy being able to walk to a nearby café or store, and commercial areas benefit from having people living around them to watch the street and give life to the area around the clock. Of course, some more intensive uses truly don't mix well with homes, but many of the best towns find different uses to be mutually beneficial.

Different kinds of housing, from small apartments to detached single-family houses, are also found within Stanardsville. Residents have different housing needs at different times in their lives, especially the elderly and people with disabilities. When a town can provide for each of these needs, there can be a rich diversity of ages living in the community. A variety that includes some more modest dwellings is also a sure way to provide affordable housing to people who need it.

Developing vital towns goes hand-in-hand with preserving the rural heritage of Greene County, a value that citizens have emphatically stated. Traditional towns are more compact than modern development and in many cases they can grow inward by redeveloping land that is already in use or vacant. Since Greene County expects to grow in population into the future, creating highly livable towns where people

choose to live and shop must be part of any strategy for rural preservation. Town residents also benefit from having more natural areas, including neighborhood parks, within a close distance.

The next few pages offer design recommendations for different place types as identified on the Future Land Use Map. The Town Center in Stanardsville and Village Centers in Ruckersville and Corner Store are the identified hearts, both geographically and culturally. The Mixed-Use Residential place type creates the periphery of these towns with a slightly different emphasis. Suburban Residential is the next layer outward, and Industrial Center and Senior Residential are special districts designated for a particular purpose.



This photo of Main Street in Stanardsville from the early 20th Century illustrates many of the town design principles presented in this plan.

GUIDELINES FOR URBAN DEVELOPMENT AREAS

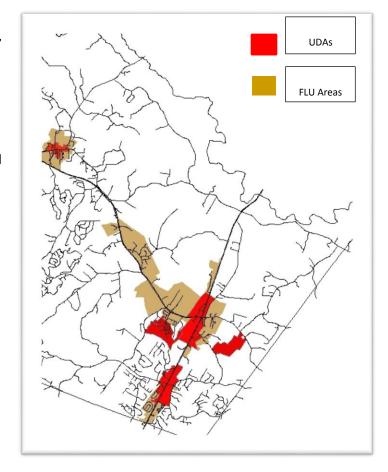
The Code of Virginia now mandates that all high-growth counties, which includes Greene, create urban development areas (UDAs) of sufficient size and density to accommodate anticipated residential, commercial and industrial growth for a period of at least 10 years but no more than 20 years. According to the Code of Virginia, an urban development area is an area designated by the county that is appropriate for higher density development due to proximity to transportation facilities, the availability of a public or community water and sewer system, and proximity to a city, town or other developed area. Such areas shall incorporate principles of traditional neighborhood development.

More specifically the Code of Virginia states that UDAs must provide for a residential density of at least four residential units per gross acre and commercial development with a minimum floor area ratio (FAR) of 0.4 per gross acre. While "urban" may be a misnomer in Greene County given its rural heritage, in fact, growth areas are an essential component to preserving rural areas. The term urban is a relative one. In this Comprehensive Plan, the Mixed Use Village/Town Centers and the Senior Residential districts together meet these basic guidelines for density and compactness.

Code of Virginia: Design Elements for UDAs

- Pedestrian-friendly road design
- Interconnection of new local streets with existing local streets and roads
- Connectivity of road and pedestrian networks
- Preservation of natural areas
- Satisfaction of requirements for stormwater management
- Mixed-use neighborhoods, including mixed housing types
- Reduction of front and side yard building setbacks
- Reduction of subdivision street widths and turning radii at subdivision street intersections

More specifically, the Ruckersville, Corner Store Mixed Use Village Centers, the Stanardsville Town Mixed Use Center, and the Senior Residential Districts, when built at a density of 6 residential units per acre, yield more capacity than is anticipated for the next 10 years' growth. Based on current and projected population figures, planning for a population of between 5,207 and 9,350 persons meets the Code requirements. These figures are based on a minimum of a 10 year horizon and not more than a 20 year horizon. The 369 acres in the Ruckersville Mixed Use Center with a 20% residential component built at 6 residential units per acre yields the capacity to accommodate 1,956 persons. The 253 acres in the Corner Store Mixed Use Village Center with a 20% residential component built at 6 residential units per acre yields the capacity to



accommodate 820 persons. Similarly, the Stanardsville Mixed Use Town Center's 83 acres with a 20% residential component built at 6 residential units per acre yields the capacity to accommodate 269 persons. These calculations are based on a household size of 2.7 persons per home, as determined in the 2010 U.S. Census.

For the Senior Residential areas, the 391 acres built at 6 residential units per acre and with a household size of 2 persons, yields the capacity to accommodate 4,692 persons.

All told, then, the Ruckersville, Corner Store, Stanardsville and Senior Residential areas can accommodate 7,737 persons creating enough capacity to plan for Greene County's expected growth through the year 2025.



The illustrations presented here are intended to show the density requirements for UDAs. Above is an existing development along the US 29 corridor. A one-story 65,000 square foot building footprint covers 26% of the parcel. The Floor to Area Ratio is 0.26, which is beneath the 0.4 required for UDAs.

The illustration below is a hypothetical development on the same site as the previous one. Each of the buildings are 3-floors and they comprise a total of 165,000 square feet. This results in a Floor-to-Area ratio of 0.73, which is well above the state minimum. Note that the site would be compliant with two-story buildings as well, at 0.49 FAR.



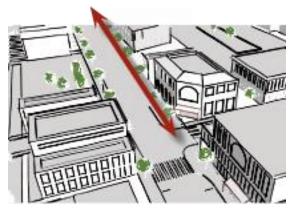


The final illustration is a hypothetical residential development directly ajacent to the previous commercial area. Despite the abundant green space and large size of homes, this neighborhood has a density of 4.9 dwelling units per acre, above the requirement minimum of 4 in the State Code

Mixed-Use Village or Town Center

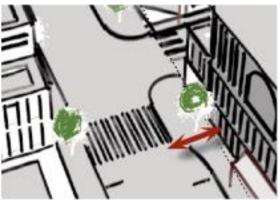
Village Center areas correspond with the first tier of growth areas in Ruckersville and Corner Store. This is Town Center in the case of Stanardsville. The primary intent of this place type is to create a discernible center of these communities by facilitating a mix of

commercial, office, and residential uses appropriate for a small scale. There is potential for future transit service in high activity areas. The intended mix of uses within the Village and Town Centers include a core of commercial and office with residences fanning out from this core. The mix of uses should be market-driven, being flexible rather than prescriptive. The Village and Town Center residential developments are the highest density of all tiers and provide for a diversity of housing types, including single and multi-family.



Block Length:

Block lengths should be small and walkable to offer the greatest number of possible connections. This reduces distances pedestrians must walk and ensures easier access to all buildings. More potential routes will also reduce traffic congestion through allowing good internal and external circulation.



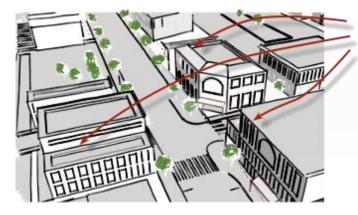
Streetscape:

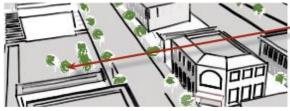
Streetscape is an important element for drawing customers or clients into a commercial district. Sidewalks should be wide, preferably with planting strips between the sidewalk and road. Street trees greatly enhance aesthetics. Building setbacks are short to establish a pedestrian scale and identifiable village center.

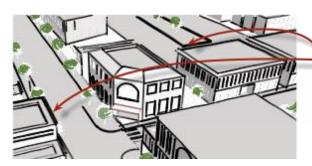


Building Height:

Buildings are sized to enclose the street and create the feel of an outdoor room while allowing enough light. Building heights should allow for a vertical mixture of uses, such as second story residences or offices.







Mix of Uses:

Village or Town Centers are the heart or Greene's business environment, so commercial and office uses are primary. Residential uses are also helpful to ensure a 24 hour vibrancy to the place. Examples of appropriate uses are storefront retail, restaurants, office, multi-family residential, single-family residential.

Open Space:

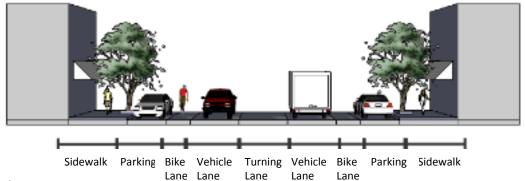
Open spaces are designed for heavier use. A Town Center Square can create a public space that complements a retail environment. Pocket parks or a neighborhood park allow for a natural experience.

Parking:

On-street parking is ideal. It is a buffer for pedestrians, slows traffic, and is convenient for shoppers. Surface parking, where necessary, is located behind the building so it does not interrupt the pedestrian environment.

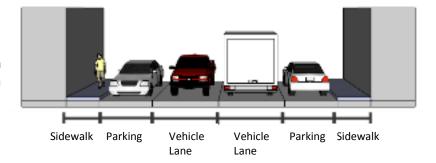
Commercial Street:

This street type is intended to facilitate the volumes of traffic needed for retail while maintaining an attractive environment for pedestrians. Buildings will typically front the street with little to no set back. The parking lane can be extended an extra 8 ft. for diagonal parking.



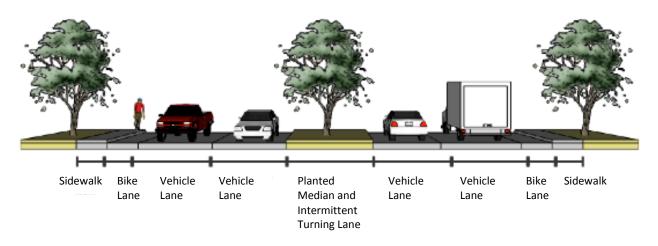
Side Street:

This street type is lower volume, intended to carry cross-traffic between commercial streets. Buildings will typically not front a side street. On-street parking is a important function. Sidewalks need not be generous but safely passable.



Collector Boulevard:

Collector boulevards are intended for higher volumes and more limited access points. There are two travel lanes in each direction with potential for a turning lane in the center median when necessary. Buildings are set back several feet and they may be fronting a parallel road instead.



Mixed-Use Residential

Mixed-Use Residential areas correspond with the second tier of growth areas around the Town of Stanardsville, Ruckersville, and Corner Store. The primary intent of this place type is to provide traditional high-amenity and market-driven residential choices, combining green space and sufficient privacy

with access to services. The street grid is highly connected with special attention given to the pedestrian experience. Commercial and office uses complementary to a neighborhood are encouraged.



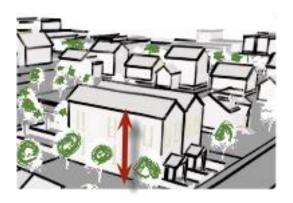
Block Length:

Blocks lengths should be relatively short and walkable to allow multiple routes of connection between places. This creates a pedestrian and cyclist-friendly environment and reduces congestion by dispersing traffic.



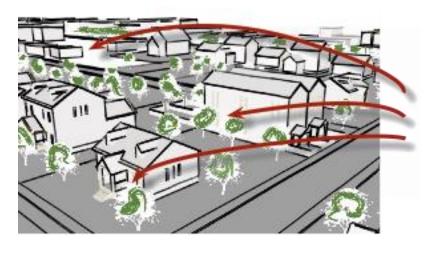
Streetscape:

Areas between public streets and private buildings should have a neighborhood feel. This includes adequate sidewalks with planting strips and bike lanes on busier roads. Homes can be setback or raised up to ensure privacy, but too much setback (> 30 ft.) detracts from the life of the street.



Building Height:

Building heights should be flexible enough to allow multiple uses, but not so much as to overshadow the residential character of the neighborhood.



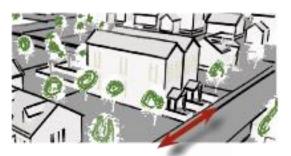
Mix of Uses:

Although the primary focus is residential, a variety of neighborhood-serving activities are allowed. Potential uses can be single-family residential, multi-family residential, storefront retail, civic, restaurant, or others.



Open Space:

Natural amenities are important to the livability of these areas. They are smaller-scale and focused on the needs of residents, often becoming neighborhood focal points. These include pocket parks, neighborhood parks, and community gardens.

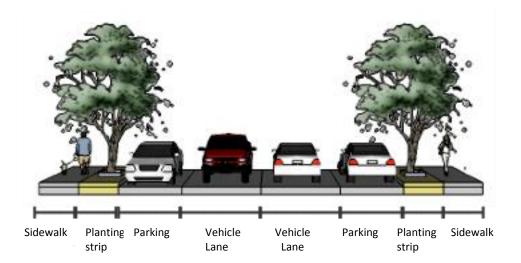


Parking:

On-street parking is preferred. It offers the most convenient front-door access and it helps buffer the sidewalk from vehicle lanes.

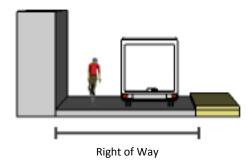
Neighborhood Street:

Neighborhood streets are quiet residential routes with generous landscaping. The lane widths are as narrow as possible to calm traffic, reducing the need for retroactive traffic calming. Sidewalks are separated from the road by a planting strip with street trees. Gentle curves and narrowings at designated crossings can also help to calm traffic.



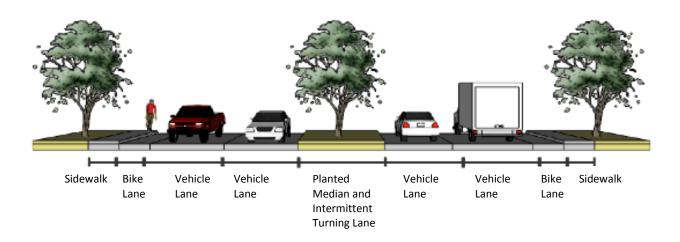
Service Alley:

Service alleys run behind residences and businesses to facilitate pick-ups and drop-offs as well as waste removal. Because the vehicle movement is slow, they can also function as safe bicycle routes.



Collector Boulevard:

Collector Boulevards are intended for higher volumes of traffic and more limited access points. There are two travel lanes in each direction with potential for a turning lane in the center median when necessary. Buildings are set back several feet and they may be fronting a parallel road instead. Landscaping is not only aesthetic but helps remediate stormwater runoff.



Suburban Residential

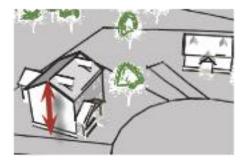
Suburban Residential areas correspond with the third tier of growth areas around the Town of Stanardsville, Ruckersville, and Corner Store. The primary intent of this place type is to provide private neighborhoods and facilitate optimal automobile access. Passive open space is used liberally to give the feel of a rural character. These

design elements are intended to be voluntary and interpreted in the context of the marketplace.



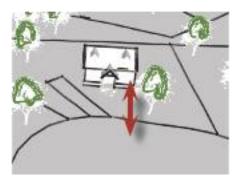
Block Length:

Street intersections need not be as frequent as in the Mixed Use Neighborhood, but a certain minimal degree of connectivity will ensure an efficient flow of traffic. Streets are likely to be placed to follow the natural curves of topography. External connections to nearby neighborhoods and activities enhance the whole area by allowing safer pedestrian and cyclist routes and dispersing traffic flow.



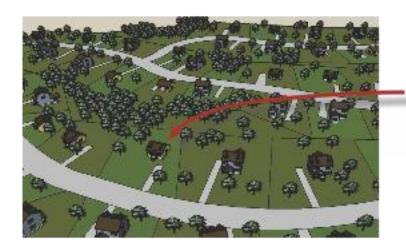
Building Height:

Buildings are one or two stories, as typical of detached single-family residential buildings.



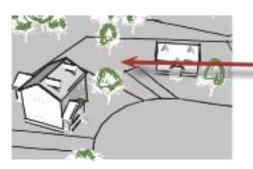
Streetscape:

Homes are set back from the street to establish privacy and project a rural feel. Streets will ideally have sidewalks, but larger lot subdivisions may forgo this feature.



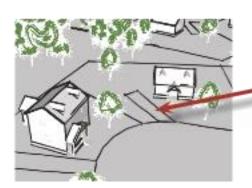
Mix of Uses:

Detached Single-family Residential is the dominant use. Certain civic institutions may be present as well.



Open Space:

The majority of open space is in private ownership as residential lawns. There may be a community park and some passive open spaces as well.



Parking:

Most parking occurs in residential driveways and garages, but on-street parking is typically available as well. It is recommended that garages be placed to the side or rear of the house so that they do not dominate the residential frontage.

Senior Residential

The Senior Residential place type is intended to facilitate the creation of age-restricted communities. Many seniors prefer places conducive to active living, within walking distance of useful services and activities, and with enough variety of housing types to meet changing needs. The Senior Residential place type also pays close attention to the needs of residents with disabilities and overall safety provisions.



Mix of Uses:

Senior residential incorporates a variety of residential types, from single-family detached houses to multistory condominiums, in order to meet the needs seniors face as they age. A limited number of community facilities, such as clubhouses, pools, and gyms are also encouraged to serve the residents.

Streetscape:

Sidewalks with generous widths and clearly marked crossings are important for pedestrian safety. Landscaping along the street creates an attractive park-like setting.



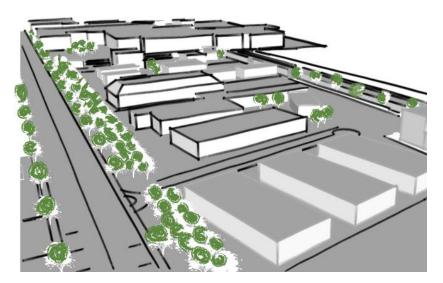


Design of the site and buildings ought to allow for "aging in place." Residents can meet their changing needs without having to move to a different location for each stage. Principles of Universal Design allow access for a broad range of ability levels. For example, grounds are smooth and free of obstructions to allow for wheelchair movement. Street signage is large enough to see from a distance. Doors and passageways are sufficiently wide. Outdoor lighting is bright and appropriately placed for safety and convenience. In some cases, auditory signaling is used to assist pedestrians at high-volume crossings.

Industrial Center

The Industrial Center place type is coordinated with the Greene County Industrial Park. It is intended to provide the necessary space for contemporary businesses and industrial operations functioning at a regional scale. Although the place type is for employment uses only, the designated location between Stanardsville and Ruckersville is in reasonably close proximity to

residential areas and other services. Regional transportation access is also fundamental to its location.



Mix of Uses:

A variety of industrial uses that do not exert a negative impact on adjoining property owners are part of the Industrial Center. Office complexes, research labs, and other specialized facilities such as trade schools fit as well. Limited commercial services may be present to serve employees. Storage areas, such as warehouses and supply yards, are also part of the mix of uses.

General Principles of Industrial Center Design:

Of all of the place types, the Industrial Center can offer the greatest degree of flexibility to meet the site specifications needed by the various businesses in the Center. However, there are some generalized principles that can guide design decisions within the Center:

- 1. **Vegetative Buffer**. A green setback can help screen the industrial uses from roadways, as well has filter the stormwater runoff from impervious surfaces. Placement in the low-lying areas or in graded swales is ideal.
- 2. **Transportation Access**. Convenient truck and car access to all portions of the industrial center are critical to business operations. Sufficient off-street parking and higher-capacity roadways are recommended.
- 3. **Environmental Site Selection**. Any industrial use will alter the natural state of the land, but attention ought to be given to areas of special ecological significance. Low-Impact Design techniques can help mitigate any land use effects.
- 4. **Coordination of waste exchange**. Ideally firms can be encouraged to co-locate to take advantage of exchanges of resources, thus lowering costs and reducing the overall waste stream. For example, a scrap wood yard could recycle materials for a cabinet-making facility. Site design may be able to facilitate such exchanges.

GUIDELINES FOR RURAL AREAS

One of the most significant wishes of county citizens, as voiced in the 2010 Comprehensive Plan community workshops, is for the county to retain its rural character. The Future Land Use map designated 93,968 acres of the county as rural, outside of the designated growth area. There are two primary planning approaches that serve this end. First, growth areas should be desirable and attractive places to live and work. Such desirable places take the pressure off the rural areas and help decrease the rural suburbanization of the county. Growth areas should be the destination of choice. The above Guidelines for Growth Areas section lays out the principles that help achieve this goal. Second, the planning principles applied in rural areas and discussed in this section help retain the rural character of the county, even as a degree of rural growth occurs.



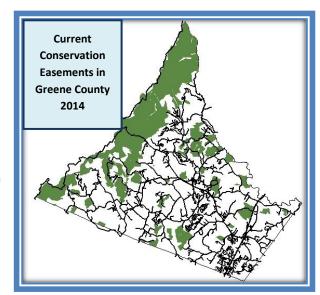
While rural character is notoriously difficult to define, certain land use techniques do help retain the rural feel and ambiance of the county. First, land preservation techniques are the most obvious method of retaining rural character. Second, effective rural development techniques contribute to retaining rural character. Careful use of these rural development techniques can result in the retention of the rural appearance. For example, careful placement of the homes within a subdivision, through clustering or other

neighborhood design approaches, and the retention or planting of a vegetative buffer between the homes and the rural road way help hide the development that lies behind.

LAND PRESERVATION TECHNIQUES

CONSERVATION EASEMENTS

Conservation easements are long-term, typically indefinite, contractual agreements to leave an allotted portion of property in a natural state. A landowner always accepts an easement voluntarily, either as a donation or sale, and a specific agency is authorized to oversee compliance with the agreement. Easements can be made on a portion of a parcel, and they do not have to allow public access. In many cases, the land held in easement continues to be in agricultural or forestry use.



Often there are tax incentives from both the federal and state levels available for landholders with easements. There are currently 76 conservation easements in Greene County, for a total of 13,133 acres. Greene County currently encourages easements by utilizing a land use tax, as explained in the following section. This policy is particularly useful for encouraging easements in land that would otherwise be highly susceptible to development.

LAND USE ASSESSMENT POLICY

The Code of Virginia (§ 58.1-3230 through 3244) specifies that real estate meeting certain criteria be given special tax consideration. Properties devoted to agricultural, horticultural, forest or open space use as outlined in the Code of Virginia "Special Assessment for Land Preservation" §58.1-3230 are eligible to a reduction in real estate taxation. For the year 2016, there were 976 properties in Greene County enrolled in land use assessment, which resulted in a tax deferment of \$2,208,554. The purpose of land use taxation is to preserve agriculture and forestry industries by providing a financial incentive. This reduction in tax assessment has been shown to be essential in supporting a profitable agricultural/forestal business. Counties which have chosen to remove land use taxation as a management tool have seen a high rate of property converting to more intensive uses and a significant loss of agricultural/forestal lands. The benefit of land use taxation extends to all the citizens of the county, since tax rates can remain low when residential growth is not expanding at a rapid pace.

AGRICULTURAL/FORESTAL DISTRICTS

The Agricultural and Forest Conservation District Program is a voluntary program in which farmers, foresters and landowners form an Agricultural and/or Forest Conservation District for the purposes of conserving areas that are rural and agricultural. In 2000, there were a total of 13,500 acres designated as Agricultural and Forestal District in Greene County. The district was reviewed in 2010 finding that the acreage was reduced to 5,324 acres. In 2015, only 3,812 acres remain in the district.

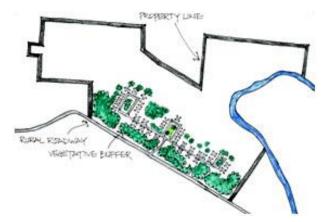
The property owner continues to hold fee simple title to the land, but the easement restrictions run with the land for a set term of years. The agreements usually include exceptions that permit the landowner to withdraw from the program under certain circumstances.

Agricultural-Forestal Districts (AFDs) were established by the State of Virginia as a means for counties to offer incentives to landowners to maintain their property in agriculture and forestry. These benefits include: (1) eligibility for Land Use taxation, (2) A degree of protection from eminent domain and municipal annexation, and (3) protection from nuisance complaints. These protections are in effect for the duration of the contract period. As a result, the county is able to more accurately plan land use in the region, since the owner agrees not to convert the property to a more intensive use for the duration of the contract. The rural nature of the landscape is maintained and the tax rates remain low since residential development is slowed and county resources are not overburdened.

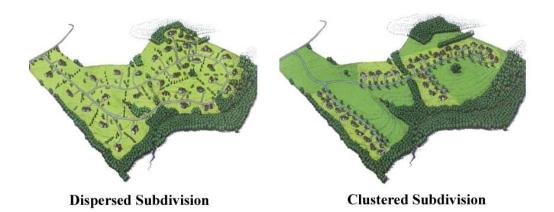
RURAL DEVELOPMENT TECHNIQUES

CLUSTER DEVELOPMENT

The cluster form of development seeks to preserve open space within a property by developing a subdivision in a condensed form on a portion of the land. Clustering buildings on a site allows space for ecologically-sensitive areas while allowing development to proceed. Clustering offers numerous benefits to the community, the natural environment, and to the property values of the new



development. The open space can serve as agricultural land, recreational land, wildlife habitat, or any combination of these. Clustering also often qualifies as Low Impact Development (LID), which can significantly reduce stormwater runoff and non-point source pollution. This specific form of clustering is tailored to rural, rather than urban, development.



CONSERVATION SUBDIVISIONS

At the individual site level, there are many design strategies that developers can use to draw out the natural features inherent to the landscape. This approach requires a more careful survey of existing conditions and the creation of site-specific plans, but developments that take these steps are often financially successful.

This is a somewhat reversed process from conventional site development in that the roads and parcel lines are placed last. This approach has been shown to decrease the amount of impervious surface in a given development, maintain the initial gross densities, and save money by needing less pavement and clustering for more efficient service delivery.

Conservation Subdivisions combine features to protect water quality with site-specific designs that take into account the locations of valuable natural resources. Often conservation easements are used to

protect portions of the development. Conservation subdivisions are appropriate developments in the rural areas of Greene County. This form of development may be preferred by Greene County's residents based on input provided at various planning forums.

FUNDAMENTAL LAND USE PLANNING TOOLS

ZONING ORDINANCE

Zoning is a primary land use regulatory tool that divides a locality into specific districts and lists uses permitted in those districts. The text of the zoning ordinance provides for uniform regulations throughout each district and generally spells out the substantive restrictions on land use and development within those districts.

Zoning ordinances regulate only those land use elements specifically authorized under the enabling legislation. This primarily includes the regulation of land use, size, height, bulk and removal of structures, dimensions of land, water and air space to be occupied by buildings, structures, and uses, and the excavation of mining soil and other natural resources.

Zoning ordinances may use physical form of development within districts as additional tools. This physical form addresses the relationship between building facades and the public realm, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks. The place types described above use the physical form of development as guidelines.

SUBDIVISION ORDINANCE

The division of land often results in more intense and different land uses, which have impacts on surrounding land and communities. Consequently, most jurisdictions use subdivision regulations to permit the orderly division of land into parcels or lots for development.

Subdivision regulations provide for the direct control and standardization of land development. Used in conjunction with a well-organized zoning ordinance, the coordination between development and supporting infrastructure occurs. A benefit of subdivision regulations is that they can be applied at the time of development.

Subdivision of land is a "by-right" allowance for a landowner and, as such, the review of a subdivision proposal is a ministerial act by a local government. Therefore, the landowner is only obligated to meet the applicable subdivision (and zoning) regulations in order to subdivide. It is critical to successful implementation of current planning policy that the subdivision ordinance fully reflect the intent of that policy and that there is complementary linkage of the Comprehensive Plan, Zoning Ordinance and Subdivision Ordinance.

CAPITAL IMPROVEMENTS PLAN

The Capital Improvements Plan (CIP) is the multi-year scheduling of public physical improvements that help guide a locality's decisions on how to allocate funds. The scheduling is based on needs identified in the comprehensive plan, studies of fiscal resources that are available, and the choice of specific projects for construction in the medium-term future.

The CIP provides a mechanism for estimating capital requirements; planning, scheduling, and implementing projects; budgeting high priority projects; developing revenue policy for proposed improvements; monitoring and evaluating the progress of capital projects; and simply informing the public of projected capital improvements.

Localities use the CIP to support growth through the calculated sizing, timing, and location of public facilities such as roads, school improvements, parks and recreation enhancements, attractions, water and sewer facilities and drainage improvements.

Any proposed public improvement not included in the CIP is required by the Code of Virginia Section 15.2-2232 to be subject to a public hearing and decision from the County Planning Commission, to determine consistency with the Comprehensive Plan.

GOALS AND IMPLEMENTATION STRATEGIES: FUTURE LAND USE

- Support land use practices that help retain the rural character of the county.
 - Encourage protection of forest, wildlife habitats and the rural landscape in rural development.
 - Support the voluntary use of clustered subdivisions and conservation subdivisions.
 - Encourage the voluntary dedication of land in conservation easements or Agricultural and Forestal Districts
 - Encourage the location of homes within a rural subdivision to buffer development from the roadway thereby preserving the rural character.
- Promote business and residential development in a manner that focuses growth in the designated growth area.
 - o Create incentives for concentrating development into the designated growth area.
 - o Promote flexibility in the planning of places in the growth area to take advantage of the unique needs and opportunities inherent in a specific site.
 - Coordinate public infrastructure improvements and the Capital Improvements Plan to facilitate development in the designated growth area.
 - Update county zoning and subdivision ordinances to reflect the recommendations included in this chapter.
- Focus the majority of business, office, higher density residential development and institutional uses in the Mixed Use Village and Town Centers.
 - Encourage infrastructure improvements, including water, wastewater and transportation, in the Mixed Use Village and Town Centers
- Encourage developments in the designated growth area to include traditional neighborhood design principles
 - Develop design guidelines or models that define and illustrate traditional neighborhood principles best suited to Greene County.
 - Encourage infill development within the growth area to create more compact places.
 - Integrate a variety of transportation options, including pedestrian, bicycle, transit and other vehicular traffic.

TRANSPORTATION

INTRODUCTION

A well designed transportation system provides a variety of choices – vehicular, pedestrian, bicycle, and transit— and can have a positive influence on economic development, quality of life and, a sound land use strategy. The arrangement of land uses has a significant impact on the transportation system. Walkable communities, transit-ready and transit-oriented design, and land use strategies coordinated with sound transportation principles result in increased transportation choices – and more livable communities - for Greene County



citizens and visitors. This is the essence of a "multimodal" transportation system that is linked to land use.

This chapter provides a summary of existing transportation conditions, makes the connection between transportation and land use, identifies transportation needs and makes recommendations on how to meet these needs. Specific recommendations follow, in part, the recommendations in the 2009 *Multimodal Corridor Study for the US 29 and US 33 Development Areas in Greene County*. These recommendations include access management strategies, a thoroughfare plan, connectivity measures and future street types. This chapter provides an overview of traffic calming techniques for both new and retrofitted applications.

EXISTING CONDITIONS

CURRENT ROADWAYS AND STREET NETWORK



Roadways are the most prominent elements of Greene County's transportation infrastructure. 93.7% of residents reported in the 2010 census commuting by private vehicles, either alone or with others, and there is no reason to believe this proportion has shifted much in the intervening years. In addition to safely and efficiently facilitating automobile traffic, Virginia Department of Transportation (VDOT) has made efforts to improve roadways to serve a number of travel modes, such as bicycling, walking and bus transit.

As of 2015, VDOT maintained 52.4 miles of primary roadways and 328.4 miles of secondary roadway, of which 50 miles are unpaved. The 2015 State of the Pavement VDOT report determined most primary

roadways in Greene County to be in excellent or good condition, with the notable exception of Route 33 east of the US 29 corridor, which was labeled poor.



Two primary highways create the backbone of Greene County's system, US 29 and US 33. US 29 parallels the eastern edge of the county and provides direct access to Charlottesville and Albemarle County to the south and Culpeper and Washington DC metro area to the north. This highway receives substantial through-traffic, as well as commuter traffic. US 33 runs east to west across the center of Greene County, connecting Stanardsville and Ruckersville, and running west into the Shenandoah Valley across Swift Run Gap and east to Orange County and Richmond. These

two roadways make up the bulk of Greene County's primary roadway. The US 33 Bypass is intended keeps through-traffic out of Stanardsville, and Route 230 connects the town to Madison County to the north.

Multimodal Corridor Study for the US 29 and US 33 Development Areas in Greene County

The Thomas Jefferson Planning District Commission was awarded a VDOT Multimodal Planning Grant to develop multimodal transportation solutions and land use strategies for Greene County, while addressing regional travel needs on the US 29 and 33 corridors. The Renaissance Planning Group conducted this study with assistance from the Thomas Jefferson Planning District Commission and Greene County. Scenario planning workshops with Greene County residents determined a preferred future land use scenario from which a modeling analysis of the transportation needs required to achieve this scenario was developed. The five key goals of the Study were to:

- Create safe multimodal transportation options
- o Improve access to and between area businesses
- Coordinate land use planning and transportation in the Greene County
 Comprehensive Plan update
- Identify and prioritize cost-effective public and private transportation recommendations
- Coordinate with the larger VDOT US 29 Corridor Study

This Study, completed in September, 2009 is a stand-alone document but served to inform transportation planning in this 2010 Comprehensive Plan.

FUNCTIONAL CLASSIFICATION OF ROADWAYS

A street network provides a spectrum of different road types to serve different functions, in order to achieve safe and efficient travel circulation. The hierarchy of classification is based on the balance between moving traffic swiftly and in high volumes and providing high levels of access to adjoining properties. Different streets are needed to serve these different purposes. Furthermore, the functional classification of various roadways will significantly overlap with the land use of the adjoining properties. This reality is reflected in the land use chapter of this plan.

The Code of Virginia 15.2-2222.1 requires localities to develop plans that "recognize and differentiate among a hierarchy of roads such as expressways, arterials, and collectors." VDOT categorizes functional classification according to a statewide standard, differentiating between urban and rural areas. Despite recent growth in Greene's urban growth areas, the area is still characterized as a rural area as far as functional classification is concerned.

More Mobility



Principal Arterials - provide the second highest level of mobility (after Interstates) and convey large amounts of traffic over relatively long distances. Direct property access may be provided but requires careful management to preserve arterial mobility and avoid creating unsafe and congested traffic operations.

Greene County: US 29 Seminole Trail, US 33 Spotswood Trail west of US 29.

Minor Arterials – interconnect with and augment the principal arterial system, distributing traffic to smaller geographical areas.

Greene County: Business US 33 Spotswood Trail/Stanardsville Main Street, US Route 230 Madison Rd, and US 33 Spotswood Trail east of US29

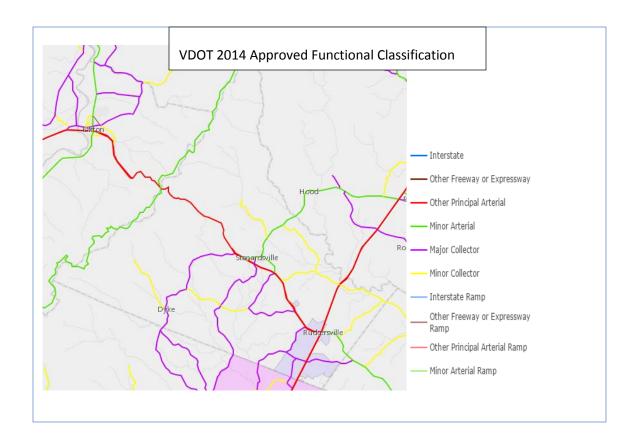
Collectors - provide traffic circulation within residential and business areas. They distribute trips from the arterials through these areas to the motorist's destination and conversely collect traffic to channel it to the arterial system. Trips are shorter distance local trips at lower speeds, so they can safely provide a higher amount of property access. Collectors are further differentiated into major and minor classes.



More Access

Greene County: Examples include Advance Mills Rd., Cedar Grove Rd., Swift Run Rd., Amicus Rd., Celt Rd.,

Local streets - provide the lowest level of mobility and are intended to offer direct access to abutting land. Design elements encourage safety and low speeds.



The VDOT classifications have corresponding capacity thresholds attached to them, represented by the following chart. Level of Service (LOS) is a measure of roadway congestion, with LOS a signifying completely free flow of traffic and LOS F forced or breakdown traffic flows. LOS E, given on the chart, is the maximum capacity of the roadway before reaching failing levels of congestion.

VDOT classification	Number of lanes	Signal/ spacing	Divided/Undi vided	Capacity at Level of Service E
1 - Rural Interstate (n/a for Greene)	4	n/a	divided	63,000
2 - Other Principal Arterial	4	<2 signals/mile	divided	34,200
2 - Other Principal Arterial	4	>2 signals/mile	divided	32,200
6 - Rural Minor Arterial	2	signalized	undivided	14,900
6 - Rural Minor Arterial	4	signalized	divided	31,200
6 - Rural Minor Arterial	2	unsignalized	undivided	27,500
6 - Rural Minor Arterial	4	unsignalized	divided	58,300
7 - Rural Major Collector	2	signalized	undivided	14,600
7 - Rural Major Collector	4	signalized	divided	30,900
8 - Rural Minor Collector	2	unsignalized	undivided	14,600

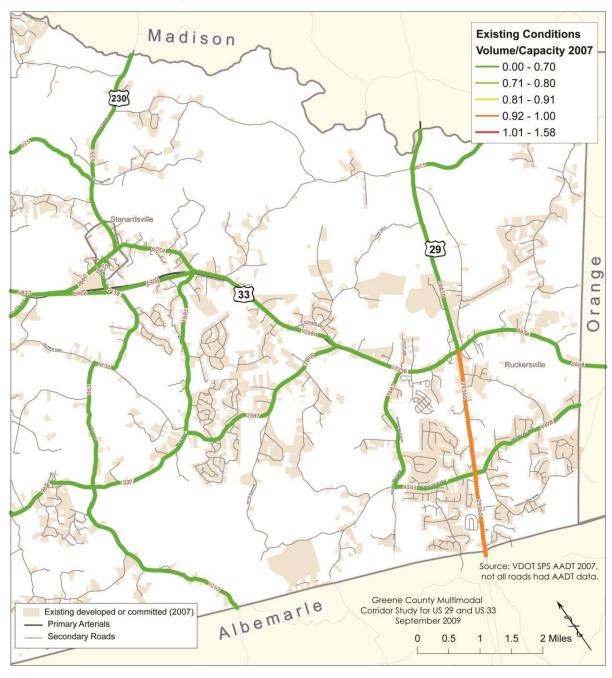
VOLUME TO CAPACITY RATIO

VDOT tracks roadway usage using sensors and cameras and releases a report periodically for each jurisdiction in the State. The measurement most commonly used to determine the volume of traffic on a particular roadway segment is Average Annual Daily Traffic (AADT), defined as the total annual traffic estimate divided by the number of days in the year.

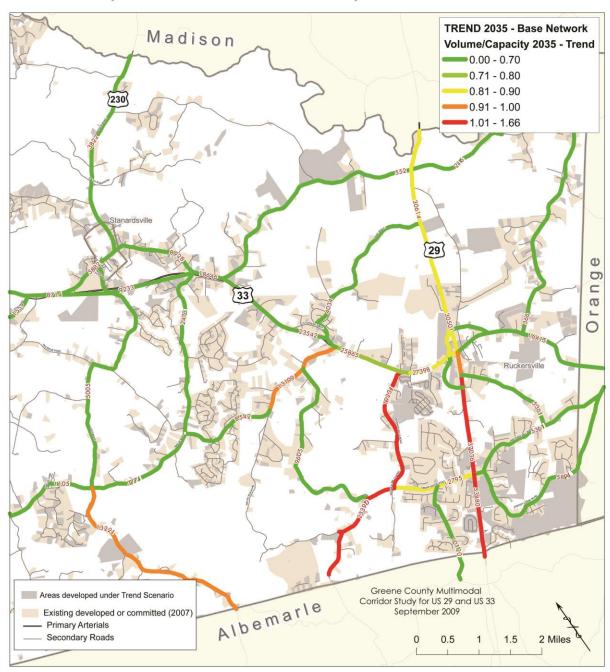
When the existing average volume of traffic is compared to the capacity of the roadway, as determined by its functional classification, a volume to capacity (VC) ratio can be discerned. When a VC ratio reaches a value of 1.0 then a roadway segment is considered to be at capacity. The map on the following page shows the VC for current traffic volumes by color. All colors but red are passing. The orange color indicates that a roadway segment is approaching a failing grade, which is 0.91 or greater. The volumes for each segment are labeled on the map.

The future trend analysis, conducted for the Multimodal Corridor Study, uses growth projections and land use inputs to model a possible "business as usual" scenario for 2035. The next two pages contain a map of 2007 VC ratios and a map of projected 2035 VC ratios for the areas around Greene Counties designated growth area.

Greene County - Existing Conditions 2007 - Volume to Capacity



Greene County - 2035 Trend Road Network Analysis



The results of the VC ratio projections do not bode well for the future of mobility in Greene County. Even at modest growth estimates the southern half of US 29 will likely be at or over capacity in the near future and certainly by 2035. There are several factors that may be contributing to this problem.

First, disconnected local street networks funnel all traffic onto major arterials. Subdivisions and commercial properties which do not connect to each other have a heavy reliance on US 29 and US 33 for access. This pattern requires the primary arterials in Greene County to function both as local main

streets and as fast moving regional highways. When a street is required to perform contradictory functions, performance of both will suffer. Under current patterns local and regional traffic are both heavily reliant on US 29.

Second, local traffic does not have alternate routes or choices for avoiding US 29. Even existing semi-parallel facilities like Advance Mills Road, west of US 29 are shown to have failing volumes by 2035. Parallel road networks increase the overall circulation of the transportation system, reduce the need for signalized intersections along major arterials, and allow more local roads to have access to surrounding land uses.

Third, most of the existing street network lacks multimodal character, encouraging travelers to use an automobile for all trips. Transit and facilities for bicycling and pedestrian use can help reduce traffic volume to a certain degree. This is especially true around areas of higher population density, which are the segments of roadway deemed most likely to fail by 2035.

Widening of US 29 in Greene will only temporarily solve the problem, and will prove to be expensive and disruptive to the local economy. If the proliferation of future signals continues, even where permitted by access management standards, the capacity improvements that come from widening will be negated. The overarching solution is multifaceted and includes land use strategies to match growth with sufficient transportation infrastructure. The needs and recommendations section of this chapter provides further detail.

TRANSIT

Greene County residents are served by Greene County Transit, a transportation system funded by Virginia Department of Rail and Public Transportation and operated under the Greene County government.

Greene County Transit provides fixed-route service from Stanardsville and Ruckersville to Charlottesville, as well as intra-county service. Door to door, demand response service is available for county residents throughout the day, six days a week.



In 2015, approximately 63,411 passengers rode Greene County Transit compared to approximately 56,000 in 2009. This is a 13% increase. Of those passengers, 10% were elderly and 7% were people with disabilities. Greene County Transit maintains a fleet of 18 vehicles. Five are wheelchair accessible and six are center-aisled vehicles with raised roofs. Vehicles traveling to Charlottesville are all equipped with racks for bicycles.

PEDESTRIAN AND BICYCLE FACILITIES

Greene County's most complete sidewalk network exists in Stanardsville thanks mainly to a Streetscape Enhancement grant award that made the downtown area safer and more pedestrian friendly with new sidewalks, bulbouts, and crosswalks. A second grant project is underway to extend the sidewalk network at either end of Main Street. Most of Main St., between Monroe Dr. and Route 230 has sidewalks on both sides. The sidewalk network continues for about 1/5 mile north along Madison Rd,



north along Ford Ave., and south along Celt Road. An off-street sidewalk connects the Greene County Primary School with the center of Stanardsville, and other walking paths existing around the County Office Building. A Stanardsville Historic Walking Tour allows tourists and residents alike to explore the town on foot.

Cycling infrastructure elements, such as safety signage and dedicated bike lanes, are currently limited in Greene County. However, there is a bicycle rack at the Greene County Public Library and the United Bank in Stanardsville. Bicycle travel is not only a mode of transportation; it is an important component of Greene County's tourism industry, as described in the tourism chapter of this plan.

Public workshops held in conjunction with this Comprehensive Plan update have highlighted the need to improve pedestrian and bicycle accommodations in Stanardsville and in other growth areas throughout the county. The Jefferson Area Bicycle, Pedestrian and Greenway Plan was adopted by the Planning District in 2004. This plan recommended a network of on-street bicycle routes and off-street greenways throughout the county to connect population centers and recreational areas.

In the last five years, VDOT has redoubled efforts to encourage cycling and walking throughout the state. A number of policies have been passed, according to VDOT, in order to "accommodate bicyclists and pedestrians, including pedestrians with disabilities, along with motorized transportation modes in the planning, funding, design, construction, operation,



and maintenance of Virginia's transportation network."

TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) seeks to improve the efficiency of the transportation system by encouraging usage that maximizes its potential for capacity. Strategies may include encouraging carpooling, staggering work hours, or giving incentives for using alternative forms of transportation which incur fewer public costs.

Rideshare, operated through the Thomas Jefferson Planning District Commission, and currently provides programs to manage transportation demand in Greene County. The



regional carpool matching service has 30 commuters enrolled in Greene County. Rideshare also offers a guaranteed ride home to alternative transportation users, in case an emergency arises and immediate transportation is needed.

Greene County is host to one Park and Ride lot near the Greene County Primary School on Route 33, near the corner of Monroe Drive and Spotswood Drive. This lot is a pick-up point for Greene County Transit, and it is also used to coordinate carpooling.

REGIONAL CONTEXT

The transportation system can only be effectively analyzed in a regional context. Of course, the circulation of traffic flow is not contained within jurisdictional boundaries. This is especially true for Greene County, because of its relatively high rates of out-commuting and close economic connection to the Charlottesville, Harrisonburg and northern Virginia areas. The following tables are the 2014 Commute Shed and Labor Shed for Greene County, determined by the U.S Census Bureau. They clearly reveal the interconnection between residences and employment centers throughout the region.

Locations that Residents are Commuting				
	2014			
	Count	Share		
Albemarle County, VA	2,412	31.0%		
Charlottesville city, VA	1,391	17.9%		
Greene County, VA	1,161	14.9%		
Orange County, VA	250	3.2%		
Fairfax County, VA	245	3.1%		
Madison County, VA	212	2.7%		
Henrico County, VA	135	1.7%		
Culpeper County, VA	128	1.6%		
Harrisonburg city, VA	111	1.4%		
Richmond city, VA	101	1.3%		
All Other Locations	1,646	21.1%		
Total All Jobs	7,792	100.0%		

The Greene County Commute shed table displays the integral connection between homes in Greene County and job centers in Albemarle County and Charlottesville. In 2014, 31% of Greene County workers were employed in Albemarle County, 17.9% in the City of Charlottesville, and 14.9% in Greene County. A fair number of Greene County residents commute to Rockingham County, Madison County, Fairfax County, and Orange County as well. The 2010 U.S. Census reports the average commuting time for residents of Greene County to be 29.9 minutes, which is slightly higher than the average for Virginia.

Where Workers Live Who are Employed in Greene County					
	2014				
	Count	Share			
Greene County, VA	1,161	39.8%			
Albemarle County, VA	373	12.8%			
Madison County, VA	165	5.7%			
Orange County, VA	137	4.7%			
Charlottesville city, VA	87	3.0%			
Rockingham County, VA	86	2.9%			
Louisa County, VA	71	2.4%			
Augusta County, VA	48	1.6%			
Fluvanna County, VA	48	1.6%			
Culpeper County, VA	39	1.3%			
All Other Locations	705	24.1%			
Total All Jobs	2,920	100.0%			

The labor shed table shows the other side of the equation, where those who work in Greene County are coming from. The regional connections exist in the labor shed, but they are less pronounced. 39.8 % of everyone employed in Greene County lives in Greene County Other workers come in from Albemarle County, Orange County, City of Charlottesville, Rockingham County, and Madison County (in order from greatest to least).

A safe and efficient transportation network facilitates the flow of labor throughout the region and is thus integral to the economic vitality of the area, both for residents of Greene County who need reasonable commute times and businesses located in Greene County that need to attract qualified employees.

The US 29 corridor is the primary connection between Greene County and the rest of the region. VDOT conducted (2009-2011) a corridor study for the entirety of this roadway from the intersection with I-66 to the North Carolina border. According to the vision of the study, the functionality of the roadway "will



be achieved through the use of both transportation and land use solutions that maintain the roadway's scenic and historic qualities, while promoting multi-modal transportation and nodal, mixed-use, transit supportive development, where appropriate."

Residents of Greene County depend on regional transportation access to airports. The Charlottesville-Albemarle Airport, which had passenger traffic of 493,506 in 2014, is as close to Ruckersville as it is to Charlottesville. The closest major terminal is Dulles International Airport, which is roughly 70 miles north of Ruckersville.

SCENIC BYWAYS

The aesthetic character of roadways has long been linked to the quality of life in a community and identified as a driving force for the tourism industry. Although these subjective qualities are not incorporated into an engineering analysis of the transportation infrastructure, they do contribute to the experience of travel in Greene County.

Greene County possesses a number of scenic roadways, although none so-designated under the state scenic byway program. Skyline Drive in Greene County is a scenic byway of national significance. It is recognized officially by VDOT and promoted through tourism literature at the State and Federal level. The roadway is also listed under the National Register of Historic Places and the Virginia Landmarks Register. Other Greene County roadways are featured in scenic drives organized around the themes of Civil War battle history, bicycling and tours of vineyards.

SUSTAINABLE ACCESSIBILITY: LINKING TRANSPORTATION AND LAND USE

The fundamental need for transportation infrastructure is to facilitate the movement of people and goods to their desired destinations as efficiently, safely, and comfortably as possible. This task does not take place in a vacuum. Land use decisions both create demand for movement and are, in turn, highly influenced by the placement of the transportation



infrastructure itself. The management of roadway capacity, land use, and travel demand are equally vital to the provision of sustainable accessibility.

Using the term accessibility recognizes that a high level of mobility itself does not necessarily lead either to economic development or a high quality of life for residents. The important goal is to provide the means for all users of the transportation system to have convenient access to their chosen destinations. When activity centers within the county are more concentrated, residents may be able to increase their accessibility while reducing the sheer amount of movement, thus saving personal time and money, reducing the fiscal stress on providing infrastructure, and reducing the impact on the environment.

Many of the chapters of this Comprehensive Plan intersect with the goal of providing accessibility to residents in Greene County, and explicitly drawing these connections can lead to balanced and effective transportation policies. Public education requires the movement of students to a school. Careful placement of schools and an efficient transportation network is a beneficial condition to the school system. Allowing students to walk or bike to school can reduce costs of busing, a reality that VDOT has accounted for in street design and safety requirements near schools.

The economic development of the county is highly correlated with the availability of adequate transportation for employees, customers, and goods and services. Likewise, agriculture and forestry are reliant on a means to get their products from farm to market quickly. The tourism industry requires transportation connections between Greene County and the wider region, while taking into account the preservation of the scenic beauty that draws visitors into Greene County.

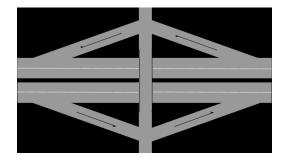
Transportation infrastructure has an impact on the natural environment. Roadways and parking lots are generally impervious surfaces that stormwater runs off into the rivers and streams of the county. This can lead to excessive erosion and sedimentation and the deposit of pollutants from automobiles and other sources into the waterways. Roads can also create barriers for wildlife movement and disrupt the biodiversity of the local ecosystem. Parks and recreational opportunities ought to be accessible to the

broadest range of residents. In some cases, transportation infrastructure itself serves a recreational function, such as greenways that can be used for commuting or simply enjoying the outdoors alike.

Affordable housing goes hand in hand with affordable transportation. Housing and transportation are typically the two largest segments of household budgets in the United States. Families with limited means need both housing they can afford and a location that provides access and options for alternative modes of transportation to reduce the cost burden. Emergency services need to move patients to a hospital or a fire engine to the site of a fire efficiently. Even short delays can be costly. To prepare for a disaster, the same emergency access should be planned for in high volumes.

NEEDS AND RECOMMENDATIONS IDENTIFIED IN THE "2009 MULTIMODAL CORRIDOR STUDY FOR THE US 29 AND US 33 DEVELOPMENT AREAS IN GREENE COUNTY."

- US 29 at Albemarle County Line: Development in Albemarle County may result in increased traffic volumes along Spring Hill Road. Recommendations include identification of a north/south corridor along the east side of Route 29 and identify spot and roadside improvements along Spring Hill Road. The Study recommends working with the development community to obtain
 - right-of-way and improvements leading to a fully connected parallel network.
- US 29 and Rt. 607 Intersection: Rt. 607 is a major collector providing access to residential development east and west of Route 29.
 Especially at peak hours, side street delays and long turn lane lines occur at this intersection.
 Short-term recommendations include intersection improvements to provide additional lanes on the side street. In the long-term, the Study



Example of a tight diamond interchange

- recommends a grade separated intersection using some form of a tight diamond interchange.
- US 29 and US 33 Intersection: While Route 33 is largely a four lane limited access arterial facility west of Route 29, East of Route 29, Route 33 has two lanes of travel and provides local and regional access to points East and to the Route 29 corridor. This intersection experiences delay, queuing, and safety concerns. As future development occurs in the Ruckersville Mixed Use Village Center, these concerns will be exacerbated and will need to be mitigated by short-term and long term strategies. Short term recommendations include driveway access point consolidation and monitor for need to add sidestreet capacity to the east side of the intersection. Long term recommendations include a grade separated, tight diamond interchange.
- US 33 and Advance Mill Road: Median crossover, signalization along Route 33 and adequate access to the Ruckersville Elementary School are all recognized as challenges to this intersection. In the near term, identify appropriate opportunities to acquire right-of-way and construct some, if not all, of the required pavement needed to realign Advance Mills Road.
- Advance Mills Road: Capacity and safety concerns heighten as higher volumes of traffic on this
 road due to its proximity to the Corner Store Mixed Use Village Center and increasing

congestion on Route 29. In the near term, improve roadside conditions and construct spot improvements to add turn lanes where needed.

ACCESS MANAGEMENT RECOMMENDATIONS

Access management is a strategy that considers the location, design, and operations of entrances, median openings, traffic signals, and interchanges to facilitate safer and more efficient roadways. In 2008, VDOT began phasing into place new access management standards, in order to enhance the flow of traffic along these corridors. Initially, the regulations only applied to principle arterials, in Greene County US 29 and US 33. Signalized intersections must be placed 2,640 feet apart, full access unsignalized intersections 1760 feet, and partial access points every 585 feet apart. In October of 2009 the second phase of implementation extended the program to minor arterials, collectors, and local streets.

The intent of access management is to balance the right of property owners to have reasonable access to the highway with the right of users of the roads to mobility, safety, and efficient expenditure of public funds. The Multimodal Corridor Study conducted an analysis of the Route 29 and Route 33 corridors, where access management is most relevant, and arrived at a set of recommendations that comport with VDOT guidelines:

- Place traffic signals to achieve the 1/2-mile signal spacing necessary for signal timing to produce maximum traffic flow rates.
- Separate potential entrances from interchange on and off ramps.
- Use minor side streets for property access.
- Close and/or relocate median openings (crossovers) to achieve the VDOT spacing standards.
- Identify suitable locations for future vehicular connections to adjacent properties (where there are no physical constraints to such connections).
- Share entrances.
- Add left turn lanes to existing crossovers.
- Evaluate the potential for frontage roads.

In some cases, current conditions do not comply with the new VDOT guidelines. As future development, occurs, modifications to the access should be examined as opportunities arise.

Route 29 Corridor Study Report

The Commonwealth Transportation Board (CTB) approved a resolution on the Route 29 Corridor Study at its Dec. 17, 2009, meeting.

The CTB approved the consensus strategies and goals of the final report and directed the Virginia Department of Transportation (VDOT) and the Department of Rail and Public Transportation (DRPT) to use the corridor-wide strategies as a high-level guide for local and regional planning within the corridor.

The CTB resolution also directed VDOT and DRPT to provide recommendations for future action on the following specific issues in the Route 29 corridor:

- A prioritized list of intersections to be replaced by grade-separated intersections and interchanges
- A plan to improve mobility and accessibility north of Charlottesville, evaluating various alternatives and not limited to prior proposals
- A plan to improve mobility and accessibility in the Gainesville, Haymarket and Buckland region, evaluating various alternatives and not limited to prior proposals
- A plan to minimize the number of traffic-control signals in the corridor.

THOROUGHFARE PLAN RECOMMENDATIONS

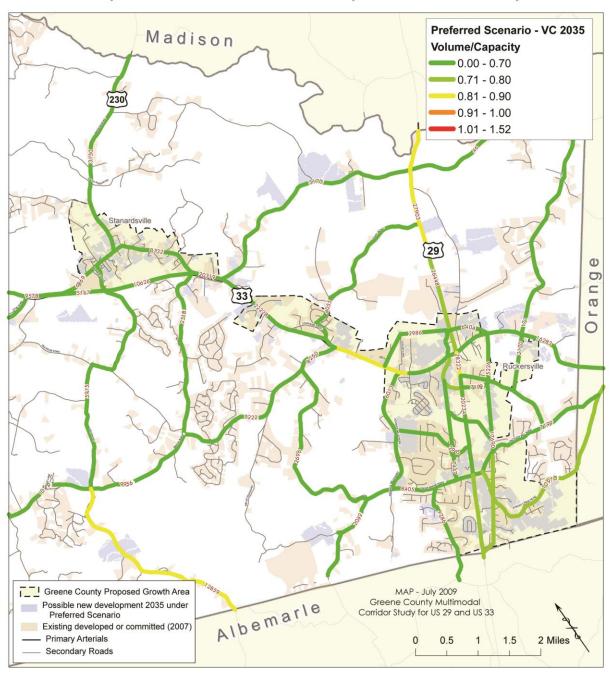
A thoroughfare plan is designed to improve the overall connectivity and performance of the transportation network, with an emphasis on growth areas. Whereas access management addresses access points along the Route 29 and Route 33 corridors, a thoroughfare plan identifies new or improved roadway linkages designed to improve connectivity. The following recommendations are intended to provide guidance on a street network that supports the land use characteristics identified in this Comprehensive Plan. Therefore, the following recommendations emphasize the link between land use and transportation:

- For local traffic, plan and build corridors parallel to Route 29 that link the Ruckersville and Corner Store Mixed Use Village Centers: These village centers are intended to have internal connectivity and local streets with walking and bicycling options. In addition, local transit service between the village and town centers through an "internal loop" that connects key destinations within the county.
- In order to avoid too many access entrances on Route 29 and Route 33, manage site access to limit and separate entrances, intersections, median openings and traffic signals. In addition, inter-parcel connectivity should be encouraged to limit the need to access Route 29 multiple times when frequenting local businesses.
- Maximize walking and biking opportunities by using the street cross-sections in the Mixed Use
 Village and Town Centers and Mixed Use Residential areas as similarly described in the Future
 Street Types Recommendations.
- In the Mixed Use Village and Town Centers and Mixed Use Residential areas VDOT's new subdivision standards are to be applied, which facilitate internal connectivity and walking and biking options.
- Plan for a strategy that phases out near term signalized intersections, replacing them with an internal grid system and grade separations along Route 29.

The following map from the Multimodal Corridor Study illustrates key thoroughfare recommendations in relation to the designated Growth Area. See the map on page 51 "Greene County – Thoroughfare Plan –

Functional Class (Existing)", to distinguish the roads on the following map that are existing from those that are planned.

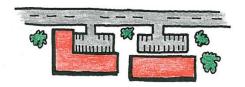
Greene County - 2035 Preferred Scenario and Optimized Network Analysis

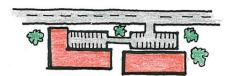


CONNECTIVITY RECOMMENDATIONS

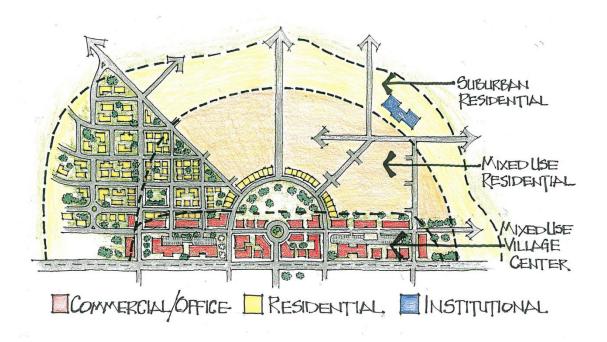
The mixed use, compact design strategies identified in the Future Land Use chapter for the Mixed Use Village and Town Centers and Mixed Use Residential areas, should emphasize a good street network and internal connectivity. In so doing, multiple travel options are provided. A good street network disperses traffic and good internal connectivity facilitates walking and biking and, in mixed use communities, allows for residential, commercial and professional uses within walking or biking distance. In so doing fewer external trips are needed, thus reducing traffic congestion on busy arterials. This concept is termed "capture rate" and may be estimated based on the types and intensity of land uses within the development.

As the Land Use Development Guidelines recommend for mixed use communities, short block lengths, bicycle and pedestrian facilities and access between parcels all facilitate connectivity. Short block lengths create more intersections, providing shorter distances to destinations and walkability. Good bicycle and pedestrian design includes on-street bicycle lanes, off-street bicycling paths, sidewalks, crosswalks, and planting strips that buffer pedestrians from vehicular traffic. Access between parcels is enhanced with one entrance to a common parking lot and linking commercial parcels internally, preferably through behind the buildings links.



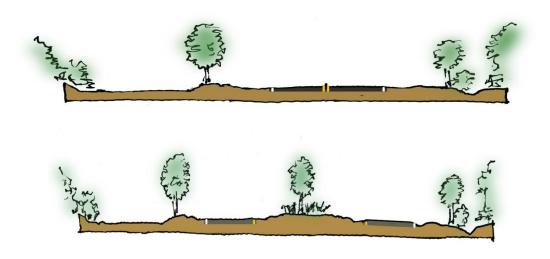


The following graphic illustrates these connectivity concepts through the continuum of Mixed Use Village and Town Centers, Mixed Use Residential and Suburban Residential land uses. The left side of the graphic depicts a gridded street pattern with short block lengths, especially in the Mixed Use Residential, and there concepts apply throughout the graphic even though shown only on the left. A school is an ideal institutional use in this context:



STREET TYPES RECOMMENDATIONS

The *Multimodal Corridor Study* differentiates between rural and urban roads when recommending street types. Rural roads include parkways, rural roads and rural roads with shared use paths. Urban roads include commercial, main, collector and neighborhood/local streets. Designed correctly, streets can facilitate not only vehicular traffic but bicycling and walking, as well as convenient transit stops. The following street elevations show some of the characteristics of good street design. The first two elevations depict a rural road with a multi-purpose path on the left and with and without a median. The third elevation depicts a more urban density with parallel parking, wide sidewalks and bike lanes.





Good street design can also help achieve environmental objectives. "Green Streets" use vegetation and pervious surfaces to manage stormwater runoff. The environmental benefits of green streets result from a natural systems approach to manage stormwater and can reduce flows, improve water quality and enhance watershed health. More specifically, green streets help:

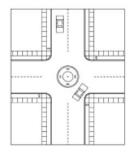
- Reduce polluted stormwater entering rivers and streams;
- Divert stormwater from the sewer system to mitigate sewer backups and combined sewer overflows;
- Reduce impervious surface so stormwater can infiltrate to recharge groundwater and surface water;
- Increase urban green space;
- Improve air quality and reduce air temperatures;
- Reduce demand on the sewer collection system and the cost of constructing expensive pipe systems.



TRAFFIC CALMING

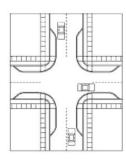
Traffic calming is the combination of primarily physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve condition for non-motorized street users. There is a variety of traffic calming techniques to either proactively or retroactively slow down the speed of traffic to safe and comfortable speeds in neighborhoods and areas with high pedestrian activity.

A few potential tools are outlined here. All images are from 2006 APA Planning and Urban Design Standards:



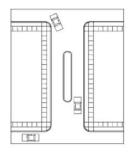
Traffic Circles

A traffic circle is a raised island located at an intersection around which traffic has to circulate. Yield signs are often used for all directions. Traffic circles are used on low-volume streets, not to be confused with the larger roundabouts



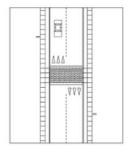
Bulbouts

Bulbouts are curb extensions at intersections that narrow the roadway to calm traffic. They are ideal for pedestrian-friendly environments because they also decrease crossing distances and open up more sidewalk space.



Median Narrowing

A raised island in the middle of the street can narrow roadway and induce lower speeds. They can contribute to an aesthetic or symbolic purpose, such as the demarcation of a new place. Narrower roadways in general are a simple means for calming traffic.



Speed Table/Raised Crosswalk

Speed tables are flat-topped humps in the roadway, a strategy known broadly as vertical traffic calming. When combined with a crosswalk, a speed table can also enhance pedestrian visibility. Tables and humps are the easiest to implement retroactively, but they may lead to problems such as delaying emergency response.

GOALS AND IMPLEMENTATION STRATEGIES: TRANSPORTATION

- Coordinate land use strategies with transportation planning to provide multiple travel options and improved accessibility
 - Maximize walking and biking opportunities by using the street cross-sections in the Mixed Use Village and Town Centers and Mixed Use Residential areas for all transportation improvements
 - Promote internal connectivity through use of short block lengths and multiple access points especially in the Mixed Use Village and Town Centers and Mixed Use Residential areas
- Increase convenient access to key destinations for all modes of travel
 - Apply access management criteria to new and existing roadways to achieve compliance with VDOT guidelines
 - Work toward a fully connected street network parallel to both sides of Route 29
 - Work with the development community to obtain right-of-way and improvements leading to a fully connected parallel network along the US 29 corridor
 - In new development, encourage internal connectivity to ease the burden of local traffic on arterial roads
 - o Promote driveway access point consolidation in existing developments
- Promote safe travel for pedestrians, bicyclists and motorists
 - Apply traffic calming techniques in existing developments and in new development as appropriate
 - o Encourage sidewalks and planting strips, medians, bicycle lanes and narrow streets
 - Support Stanardsville's efforts to restrict through tractor-trailer traffic on Main Street
 - o Coordinate with adjacent counties in order to pursue a Scenic Byways designation.
- Promote additional intra-county and external transit options
 - Plan for local transit service between the Mixed Use Village and Town Centers through development of an "internal loop" route
 - Consider the feasibility of providing additional commuter transit to key employment destinations
- Minimize the environmental impacts of new roadways and other areas with significant impervious surface
 - o Encourage the construction of "Green streets" with minimal impervious surfaces
- Promote travel demand management to help reduce the volume of traffic on county roads

- o Work with the regional Ride Share program to expand the number of county residents carpooling
- o Publicize the availability of and provide physical improvements, including signage, at the Stanardsville Park and Ride lot
- Minimize the impacts of new growth and development on the transportation network by integrating access management, thoroughfare planning and improved connectivity.
- In accordance with the Virginia Administrative Code (24VAC30-92-60) which establishes design and connectivity standards for public streets, the county will comply with this Code where applicable.

AGRICULTURE AND FORESTRY

INTRODUCTION



Greene County has a tradition of farming and forestry that goes back to its earliest days, and residents have repeatedly confirmed their strong desire to see this heritage into the future. Not only does agriculture contribute to the aesthetic values and sense of place Greene County possesses, but it is also an important industry and source of employment in its own right. The goals presented in the Comprehensive Plan outline the county's vision for the future of agriculture and forestry.

Like many other communities in Virginia that are growing, Greene County is facing the prospect of gradually losing farmland and forests. Each year a portion of land in the county is converted from growing food or harvesting timber to other uses, such as residential or commercial development. At the same time, some individual farmers are finding it more difficult to sustain a viable business or recruit the next generation to carry on their role of providing food. Preserving farmland and forestland lies at the crossroads of many aspects of the Comprehensive Plan, from caring for the county's natural resources

and heritage to ensuring continued economic development through production and tourism. Efforts to focus new residential, commercial and industrial growth into the County's Designated Growth Areas also play a key role in preserving our rural areas.

Having a safe, nutritious, and fresh supply of food is important for quality of life in Greene County, and the growing demand for locally grown foods in the region presents a renewed opportunity for Greene County farmers. Forests also provide benefits to the community and environment far

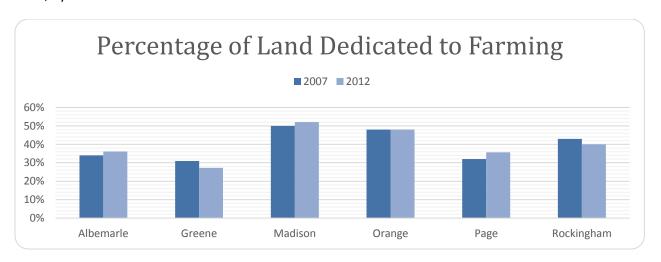


in excess of their commercial use. Each of these elements of the agricultural and forestal system is a part of the comprehensive vision for the future of Greene County.

EXISTING CONDITIONS

AGRICULTURE

Agriculture in Greene County has been undergoing a transition for many years. Variables such as the residential and commercial development and the economy over the last several decades has put pressure on agricultural land. Between 1987 and 2007, as the population in Greene County grew by an average of 3.5% per year, the amount of land dedicated to farming decreased by an average of 1.19% per year. Furthermore, the total number of farms in the county actually decreased, between 2007 and 2012, by 3.7%.

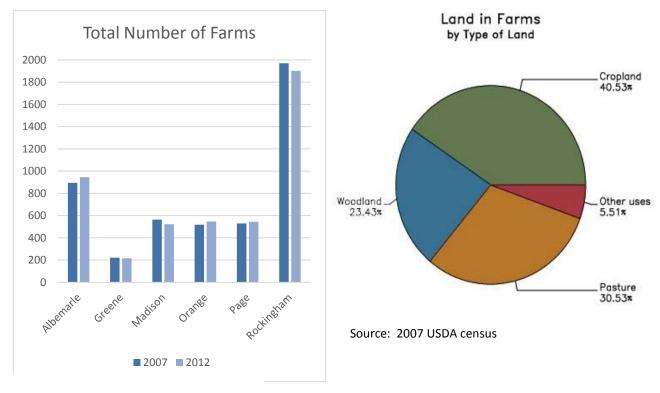


Source: 2007 and 2012 USDA census

Most of the principle operators of farms in Greene County have other sources of income to supplement their farming. Of all principle operators of farms in 2012, 50% list running the farm as their primary occupation. This is up from 2007, when 38% of all farmers were considered "full-time." The part-time farming could be due either too difficult economic situations that require farmers to take alternative jobs to maintain their standard of living, or from small-scale farming conducted by households in addition to preexisting employment in another sector. The average age of farmers in the county is 61.5. This is not unusual for the occupation throughout the country, but it does raise the issue of whether workforce supply will be able to meet the demand for agricultural production in the future.

Virginia Cooperative Extension is the local connection to Virginia's land-grant universities, Virginia Tech and Virginia State University. They offer educational programs in agriculture in their Greene County extension office. Their Agriculture and Natural Resources (ANR) programs help sustain the profitability

of agricultural and forestry production and enhance and protect the quality of our land and water resources.



Source: 2007 and 2012 USDA census

PROMOTING FARMLAND RETENTION

Greene County has recognized the value of maintaining a vital agricultural industry and has employed various measures to meet this goal. The Land Use Taxation system, used by 63 other counties in Virginia, assesses the taxes of qualified parcels according to the productive potential of the land rather than the market real estate value. This often relieves farmers of some tax burden, particularly for parcels with higher potential for development, and helps makes the use of this land for farming financially feasible. There are currently approximately 976 parcels in the county receiving this tax benefit. A study conducted by Piedmont Environmental Council of the region indicated that for every dollar in tax revenue received from farm land and open space, 11 to 21 cents were expended for services for that land. Whereas for every dollar received from residential developments, anywhere from \$1.16 to \$1.39 was expended for services. Reducing the tax rate for farmers and landowners of open space helps align these land uses with costs of county-provided services they typically incur.

The county has also used Agricultural and Forestal Districts as a support measure. These are voluntary agreements between landowners and the local government to decline from development in exchange for eligibility for land use taxation and limitations of eminent domain. When the program began in 1982, 23,315 acres were enrolled. The number of acres in the program had fallen to 3,812 acres in 2015.

Conservation easements, legal agreements to keep land open or in agricultural use in perpetuity, are another available tool. Greene County does not directly purchase conservation easements at this time, but several parcels in the county have been preserved specifically for farming through the Virginia Outdoors Foundation. A total of 13, 133 acres in Greene County are under a conservation easement.

Greene County also encourages the development of niche farming, specialty crops, agriculture-based tourism opportunities, event venues and transient lodging facilities to add to revenue options on local farms.

LOCAL FOOD

The market growth in local foods over the last several years has benefited farmers in Greene County. For ten years, the Greene County farmers' market was held June through October at the Greene County Technical College on Route 33. Currently, efforts are underway to establish a permanent



farmers Market in the Town of



Stanardarsville. About a dozen other farmers' markets are in operation seasonally in the region, at which Greene County farmers have the opportunity to sell their produce directly to customers. A growing number of grocers, restaurants, and Community Supported Agriculture (CSA) groups in the Charlottesville area are providing food from farmers in the region.

The Piedmont Environmental Council runs a "Buy Fresh, Buy Local" campaign to encourage residents to purchase food from farmers in the region. Several Greene County producers currently participate in this program. The Virginia Independent Consumers and Farmers Association

(VICFA) also works to promote small-scale agriculture in Greene County, mostly at the level of the state legislature.

FORESTRY

64% of all land in Greene County is forest cover, as identified by aerial photos from 2009. 77% of Greene County forest cover is in private ownership, and 23% in federal ownership, mostly the Shenandoah National Park. There is no statistically significant state or locally owned forest land. Most of the forest is comprised of hardwoods, with Oak-Hickory being especially prevalent.

Forests provide an important economic function to residents of Greene County. Based on annual averages collected between 2003 and 2013, 185,000 board feet of pine sawtimber and 652 cords of pine are harvested annually, which brings the total value of pine harvested to \$47,285 annually. There were 798,000 board feet of hardwood sawtimber and 845 cords of hardwood pulpwood, bringing the average total value of hardwood harvested to \$177,042. Between 2003 and 2013 timber harvests generated a

total average value of \$224,327 to Greene's forest landowners. Timber harvests drastically decreased from 2008 to 2010 and have rebounded during the 2011-2013 time frame. The 2011-2013 total harvest value is \$311,672 which is well above the 11 year average.

In addition, every \$1 in rights to harvest timber paid to the landowner yields \$41.82 in value added to Virginia's economy. When all of the economic activity generated from the forestry sector in Greene County is taken into account, over \$9 million dollars annually is added to the Virginia economy from this sector.

The USDA provides estimates of annual economic output and jobs generated from the forestry industry in the county. Direct activities include logging, hauling, milling, and manufacturing of wood products. Indirect output includes local businesses that serve the forestry industry, and induced includes multiplier effects generated from the forestry workers incomes being spent within the community.

The value of Virginia's and Greene County's forests don't stop at the timber industry. Taking into account the societal and ecological benefits – recreational opportunities, clean air and water, carbon sequestration, biodiversity and a sense of place – Virginia's forests have an additional \$4 billion value to the Commonwealth. Other studies, not specific to Virginia, indicate that the ecosystem value of forest land far outweighs the value of any commodities derived from the land. It is just difficult to quantify.

There is potential for more timber production in Greene County, but it is limited by the level of production occurring in surrounding counties and the fact that there is currently only one mill in operation in the county. On the other hand, Greene County's location along the transportation corridors of Route 29 and Route 33 are well suited for transporting products. Overall, forests in Greene County are currently more highly valued for their aesthetic properties and range of ecological services, such as water filtering, soil conservation, plant and animal habitat, and sequestering greenhouse gases, than they are for timber harvesting.

There is no good data on how many landowners in the county lease to timber companies, but the Virginia Department of Forestry has worked with landowners on over 8000 acres of land in Greene County (including logging, tree planting, management plans, prescribe burning among other activities). The department offers a set of Best Management Practices to assist landowners in preserving site productivity and water quality as part of an overall forest management program. Virginia also has a Silvicultural Water Quality law that protects against excessive sedimentation originating from forestry operations.

GOALS AND IMPLEMENTATION STRATEGIES: AGRICULTURE AND FORESTRY

- Investigate county measures to encourage and retain farming and land use operations
 - Maintain land use taxation and promote awareness of tax incentives for farmers.
 - Partner with other organizations to encourage conservation easements for agriculture and forestry.
 - Concentrate future development into growth areas in accordance with the land use section of the comprehensive plan.
 - Partner with the Greene County office of Virginia Cooperative Extension to help recruit young farmers and reduce the barriers to entry inherent to farming in the area.
- Protect forest resources in parallel with protecting agricultural resources.
- Encourage and promote specialty and niche farming such as equestrian, vineyard, nursery and greenhouse crop activities.
- Encourage farming techniques that help protect farmland and water quality
 - Encourage organic and/or hydroponic farming.
 - Promote use of riparian or vegetated buffers to a minimum width of 35 feet on either side of streams to protect fish and help keep water clean.
 - Encourage Best Management Practices (BMPs) such as no-till, contour plowing, cover crops that conserve soil integrity and health, rainwater filtration, and the reduction of overland flow of water to area streams.
- Achieve recognition of farming and farmers as a vital part of the county's future and make them part of tourism
 - Encourage annual events such as the County Fair and the Strawberry Festival.
 - Promote agritourism businesses targeted toward the Richmond and D.C. metro areas.
- Actively celebrate farming heritage
 - Collect stories from generational farmers to produce a pamphlet or documentary about the area's farming heritage.
- Support local agriculture through the Buy Fresh, Buy Local campaign and promote a year-round farmer's market in Stanardsville.

HOUSING AND COMMUNITY SERVICES

INTRODUCTION

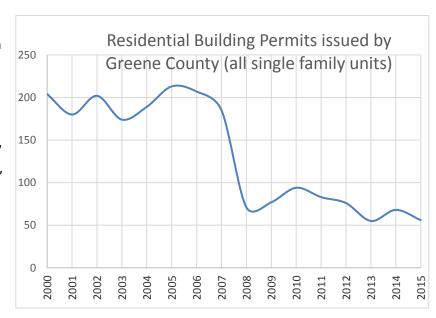
The availability of decent, affordable housing for all residents is an important goal for Greene County. This challenge becomes particularly relevant for the elderly population and others with limited means or special housing needs. Ensuring that the housing stock, including its location and type, adequately meets the needs of a growing population is an essential component for achieving the desired outcome. Several programs are currently underway in Greene County to help meet the housing needs of residents.

The many community services available to Greene County residents enhance their well-being and quality of life. Greene County residents value their branch of the Jefferson-Madison Regional Library, and circulation of books and media has been steadily growing. The library also provides internet access, which is a particularly important service for residents without access to broadband service. Medical facilities, both within and outside the county, provide routine care and emergency aid to residents. The accessibility of medical care can be a critical component in land use and transportation planning.

EXISTING CONDITIONS

HOUSING RESOURCES

In 2014, the U.S. Census Bureau estimated 7, 771 housing units in Greene County. After two decades of fairly consistent growth in housing stock, the number of residential building permits issued by Greene County has dropped in the last ten years, with the most precipitous drop occurring between 2007 and 2008. As of 2014, 4.6 % (357 units) of all dwelling units in Greene County were in multi-unit structures



AFFORDABILITY OF HOUSING

The federal Department of Housing and Urban Development (HUD) has defined housing affordability at no more than 30% of gross household income. If total housing costs, including utilities and maintenance, consume more than this threshold the housing is not considered affordable in most circumstances. While this standard may vary depending on the costs of transportation associated with accessing the particular site, it is recommended that communities seek to limit the number of households in the above 30% category.

The following table shows the occupancy status and tenure for existing housing projected through 2018 in Greene County. There was a decline in homeownership due to the foreclosure and credit crisis, which caused people to lose their home and prevented new home purchases. That trend is turning around and owner-occupied housing is expected to rebound by 2018. This will fuel demand for new construction and provide an opportunity for developers to meet the changing needs of the local population.

Housing Units by Occupancy Status and Tenure						
	2010		2013		2018	
	Number	Percent	Number	Percent	Number	Percent
Total Housing	7,509	100.0%	7,769	100.0%	8,204	100.0%
Units						
Occupied	6,780	90.3%	7,086	91.2%	7,502	91.4%
Owner	5,450	72.6%	5,594	72.0%	6,004	73.2%
Renter	1,330	17.7%	1,492	19.2%	1,498	18.3%
Vacant	729	9.7%	683	8.8%	702	8.6%

Without new construction, the housing stock becomes out-of-date, dilapidated, and insufficient to meet changing needs and a growing population. Residential construction is also a significant contributor to the local economy. New construction has been moderate in Greene County tapering off considerably after the housing bubble burst in 2007, although all areas have seen a decline in building since 2005. There was very little new multifamily construction compared to the need. The median age of housing in the county is 22 years, far younger than the state average of 33. However, there is little variety in the housing stock with 89% being single-family detached homes. This limits options for residents whose needs change over time.

New housing stock also promotes affordable housing as older housing lowers in value compared to newer home prices, both for rent and sale. As of 2013, the U.S. Census reported an estimated 93 households with incomes \$20,000 or less that were paying more than 30 percent of their income for housing. In contrast, there are only 41 affordable rental units available in the county. Overall, 36% of renters of all incomes are facing unaffordable housing costs.

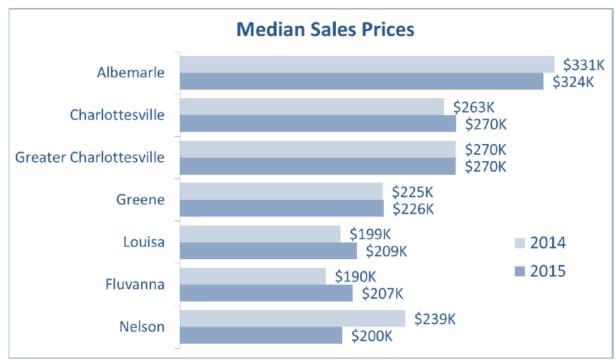
The two largest populations, Millennials and Baby Boomers, have diverse housing needs, but similar housing wants. Among these are smaller, lower maintenance units with energy-efficient features. They are also looking for locations that offer access to public transportation and are within walking distance to amenities and services. New housing stock and development patterns will help meet this demand and attract these growing populations to Greene County. Seniors also have a growing need for affordable housing. Trends show that seniors are increasingly facing debt and housing cost burdens (40% of seniors pay 35% or more of their income towards housing). Therefore, tax abatement programs, financial assistance with home repairs, and additional rental units will help address their needs.

Population, 2014	Greene		
	Count	Percent	
Total Population	19,031		
By Age			
Children (0-17 years)	4,617	24%	
Adults 18-64 years	11,419	60%	
Adult 65+ years	2,995	16%	
By Race & Ethnicity			
White	17,127	90%	
Black/African American	1,485	8%	
Other race	356	2%	
Hispanic/Latino	953	5%	

Therefore, housing affordability is a problem in Greene County but not yet as pronounced a problem as it is in the region, particularly in the City of Charlottesville and Albemarle County.

The high and growing proportion of single-family detached houses in Greene County may provide barriers to affordable housing for low-income households. This housing type is typically the most expensive in terms of land and energy costs, and a broader range of options in housing types may reduce the burden of housing costs for those in the 30% and above category.

Between the years 2002-2010, the median sale price for homes in Greene County, as recorded by the Charlottesville Area Association of Realtors (CAAR), had increased by 88%, a trend which had undoubtedly put more pressure on affordable housing in the county. However, for the last five years, the median price in Greene has been virtually flat, rising only \$500 to \$225,500.



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Skyline Community Action Program (CAP) offers a number of services to assist Greene County residents with housing affordability. Through the HOME Program in Greene County, Skyline CAP offers down payment and closing costs assistance to first-time homebuyers as well as rehab assistance. Skyline CAP also offers indoor plumbing/rehab assistance to Greene County homeowners in cooperation with Albemarle Housing Improvement Program (AHIP). There is an Emergency Home Repair Program in Greene County as well.

Habitat for Humanity has constructed three affordable homes in Greene County and is able and willing to do more. In helping first-time homeowners participate in home ownership, Habitat builds affordable housing that is high quality and energy efficient while marshalling a spirit of community volunteerism.

Additionally, Piedmont Housing Alliance (PHA), Albemarle Housing Improvement Program (AHIP), Habitat for Humanity of Greater Charlottesville, Region 10, and Jefferson Area Board for Aging (JABA) assist with housing needs in Greene County and throughout the region. Greene County offers a real estate tax exemption for the elderly and people with disabilities who meet guidelines for income and net worth.

The federal HOME program, administered by the TJPDC regional HOME consortium, provides annual funds to each of the six participant jurisdictions, including Greene County. From 1993 through 2015, HOME Consortium funds have exceeded \$18 million. For the coming year, July 1, 2016 to June 3, 2017, the region will receive \$465,662.

The following community development goals were identified for Greene County in the HOME consortium 2016 Consolidated Plan:

- Assist First Time Home Buyer completing the First Time Homebuyers Program with closing costs and down payment assistance. Estimated HOME funds: \$6,000.
- Rehabilitate home owner-occupied unit: Estimated HOME funds: \$8,000.
- Develop one affordable rental unit. Estimated HOME funds: \$44,207.

ACCESSIBILITY AND SUSTAINABILITY OF HOUSING

The population of seniors in the region is expected to grow at a faster rate than the population in general. By 2030, those ages 65 and older are expected to grow by 30% compared to 15% for the total population. This projected demographic shift will likely create new pressures on housing types and accessibility, because an older population has a higher propensity for physical disabilities. Principles of Universal Design, such as no step entrances, an open floor plan, ground-floor bedrooms and accessible bathrooms, can allow residents to "age in place" and open up new opportunities for seniors to relocate to Greene County. These principles can be applied to new home construction, where appropriate, in Greene County.

Green building techniques can promote affordability by reducing energy costs, lessen the impact of new construction on the environment, and protect public health. U.S. Green Building Council certifies buildings through its LEED standards, and the Earthcraft certifies residential buildings in particular. The programs award points for such features as efficient insulation, high indoor air quality, use of renewable energy sources, siting in an accessible location, reduction of water pollution impact, and use of materials with low toxicity. There are several buildings certified by these programs in the Charlottesville-Albemarle region, but none as of yet in Greene County.

Poverty Rate (%)	Greene		
(70)	All ages	Children	
2004	7.8%	10.1%	
2005	8.0%	11.1%	
2006	7.7%	10.3%	
2007	7.4%	10.1%	
2008	7.3%	10.9%	
2009	8.6%	12.1%	
2010	9.7%	13.3%	
2011	9.2%	13.9%	
2012	9.5%	13.6%	
2013	11.5%	16.6%	
2014	9.6%	13.8%	

SOCIAL SERVICES

According to the U.S. Census, 9.6 % of the residents of Greene County have income below the federal poverty line. That is up compared to 6.6% in 2000. This segment of the population, as well as others who may have a temporary lack of resources, have special needs. The county department of Social Services runs several programs to assist families, children, and adults in need. They offer a range of family services, from adoption counseling to placement of children into foster care. They assist the unemployed with finding gainful employment, and provide different avenues for financial or medical aid to those who have special unmet needs.

The Greene County Commissioner of Revenue also offers a Tax Relief for the Elderly/Disabled Program to reduce the tax burden for the more vulnerable residents of the county. In 2015, the county received 275 tax relief applications, for a total of \$264,371 exempted for the year.

In addition to Social Services, there are numerous non-profit and church groups that offer services for needy families and individuals in Greene County.

LIBRARY

The Greene County Public Library, established in the 1960's, moved into its current home in Stanardsville in 2003, and was updated in 2006. Since July 1996, the Greene Library has had a professional librarian as branch manager. It is a member of the Jefferson-Madison Regional library, which has eight branches throughout the region. The Greene County Branch contains 33,000 volumes. In 2014, library visits totaled 71,376, there were 7, 352 patrons that singed into use the library computers, and 9, 103 residents were cardholders.



In addition to books and journals, the branch offers a number of community services, including several programs for adults, children and teens, use of computing equipment, use of internet and software, and notary services.

MEDICAL FACILITIES

The primary medical facilities serving residents of Greene County are the University of Virginia Health System located in the City of Charlottesville and Sentara Martha Jefferson Hospital, located in Albemarle County. UVa Health System is a nationally recognized hospital and school of medicine with over 450 specialists and subspecialists. UVa Children's hospital is included within the health system. Martha Jefferson is a non-profit hospital with a regional scope. In 2006, Martha Jefferson had an estimated 9,377 inpatient admission and 117,072 outpatient visits. The hospital staff includes 450 physicians.

The Greene Care Clinic is a not-for-profit clinic offering free medical exams, prescriptions and lab services for limited-income residents who do not have health insurance. The clinic is located in Stanardsville. Greene Family Medicine, affiliated with Martha Jefferson Hospital, is a private practice in Ruckersville.

GOALS AND IMPLEMENTATION STRATEGIES: HOUSING AND COMMUNITY SERVICES

- Support affordable housing initiatives in the county
 - Coordinate affordable housing needs with the county's housing arm, Skyline Community
 Action Program
 - Encourage participation in tax relief program for low-income property owners
 - Support Habitat for Humanity home construction projects
 - Encourage residential development of affordable housing in or near Stanardsville.
- Encourage more private medical facilities in the county, including comprehensive walk in and emergency health care services
 - Work with Sentara Martha Jefferson Hospital and UVA Medical Center to expand medical services and facilities, particularly emergency treatment in the county
- Expand services for seniors in the county
 - Assist in finding appropriate location for service-enriched independent senior living facility.
 - Work with JABA to design new programs and housing initiatives.
- Enhance a robust library system in Greene County.
 - Coordinate with the Jefferson-Madison Regional Library System to assess feasibility of a Ruckersville branch library or bookdrop.
 - Work with the Greene County Library to expand its role as a center of learning for all ages.
- Encourage more accessible housing to meet the special needs of people with disabilities.
 - o Publicize the benefits and features of Universal Design.
 - o Work with Regional Disabilities Service Board.
 - Work with Skyline CAP and the HOME Consortium to include the construction and rehabilitation of Universal Design features in affordable housing.

ECONOMIC DEVELOPMENT

INTRODUCTION

A strong economy will support and facilitate many of the goals set by Greene County, which makes economic development a continually important endeavor. Prosperous households, thriving businesses, and a government with a sufficient and diverse tax base will be better equipped to meet the challenges Greene County faces and improve quality of life for all citizens.

As Greene County sees more growth and development, it is imperative for the employment base to continue to expand at least in proportion to population growth. Providing jobs closer to home reduces strain on transportation infrastructure, builds a strong tax base for the county, and attracts new investment in the community. Greene is a business-friendly community, and each element of the comprehensive plan ought to consider how it will create better conditions for a healthy economic climate.

Greene County's commercial land use is already concentrated in certain areas and along Routes 29 and 33 corridors and the county intends to continue to encourage growth specifically in the growth areas defined in the Future Land Use Chapter of this Comprehensive Plan. Doing so makes the most efficient use of infrastructure, opens up prime transportation corridors, and protects rural areas from more intensive uses.

EXISTING CONDITIONS

EMPLOYMENT

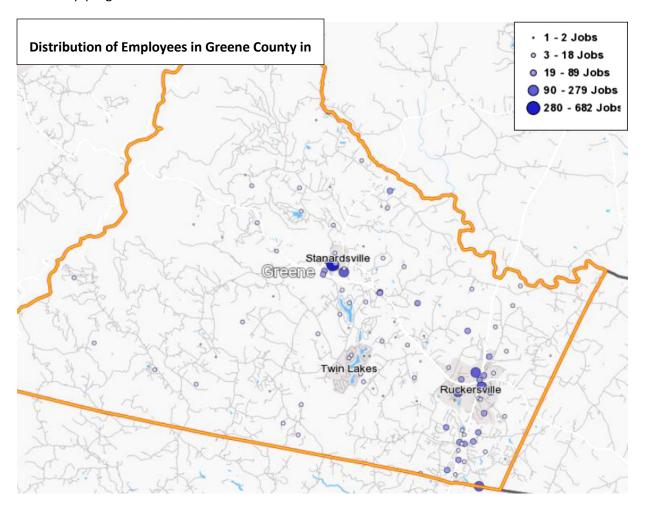
According to the Virginia Employment Commission, Greene County has a total of 3,590 jobs. With a total population of 19,162, there are 5.33 persons per job within the county, which indicates that outcommuting exceeds in-commuting substantially. For every one Greene County resident that remains in the county, 2.66 leave the county for work, categorizing Greene County as a "bedroom community." Most workers commute to either Albemarle County (2,412 commuters) or City of Charlottesville (1,391 commuters). Increasing the number of employment opportunities would not only increase the tax base and improve quality of life for residents, but it may also reduce the distances of Greene County resident commutes.

The unemployment rate in Greene County was 4.4% at the end of 2014, down from a rate of 5.5% in 2012. Greene County's unemployment rate has been consistently below the rate for Virginia by around 0.5% and below the national rate by around 2.3%.

The median income of workers in Greene County is \$63,739 which is above the national median income. Wages in the county range from \$1,367 per week for a Technical Service Provider to \$217 per week for Arts/Entertainment Provider.

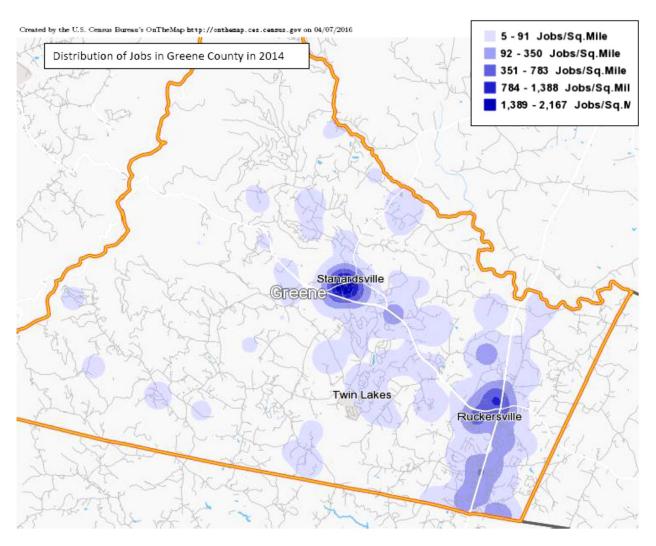
Most of the employers in Greene County are small-scale operations. Out of 444 establishments, 308 employ less than five workers. The largest employers in the county are the Greene County Public School system, Greene County, and most of the rest being large retail establishments.

Although jobs are distributed throughout the county, there is a discernable spatial pattern of concentration. Smaller firms tend to be more widely distributed, while the larger employers tend to be more concentrated along important corridors. The following map is produced U.S. Census Bureau's OntheMap program.



Created by the U.S. Census Bureau's OnTheMap http://onthemap.ces.census.gov on 04/07/2016

Employment in the county can be spatially categorized into four distinct Employment Centers that together contain 66% of all employment. The Stanardsville area contains the highest concentration of jobs, which can be explained by the predominance of public-sector employment located here. A set of industrial and business parks south-east of Stanardsville along US 33 constitute 9% of all employment. Finally, a large portion of commercial and transportation-related employment is located in Ruckersville or near the Corner Store area by the border with Albemarle County.



Jobs by NAICS Industry Sector			
	201	2014	
	Count	Share	
Agriculture, Forestry, Fishing and Hunting	17	0.6%	
Mining, Quarrying, and Oil and Gas Extraction		0.9%	
Utilities	47	1.6%	
Construction	200	6.8%	
Manufacturing	87	3.0%	
Wholesale Trade	91	3.1%	
Retail Trade	495	17.0%	
Transportation and Warehousing	78	2.7%	
Information	17	0.6%	
Finance and Insurance	38	1.3%	
Real Estate and Rental and Leasing	22	0.8%	
Professional, Scientific, and Technical Services	223	7.6%	
Management of Companies and Enterprises	3	0.1%	
Administration & Support, Waste Management and Remediation		5.2%	
Educational Services	570	19.5%	
Health Care and Social Assistance		9.0%	
Arts, Entertainment, and Recreation		1.0%	
Accommodation and Food Services		11.2%	
Other Services (excluding Public Administration)		2.2%	
Public Administration		5.9%	

RETAIL AND SERVICES

Retail and food services is the largest private-sector industry in Greene County. 22% of all new hires in the first quarter of 2014 were in the retail or food service industry, indicating that this is the fastest growth sector in the county. U.S. Census data from 2012 show that Greene County's per capita retail sales actually lagged behind other counties in the region and the state as a whole. However, these proportions may be changing due to the opening of major retail chains in the last few years and other commercial revitalization efforts throughout the county.

Ruckersville's location along Route US 29 is clearly situated to benefit from through-traffic along this important corridor. Approximately 28, 000 vehicles a day pass through the segment of Route 29 between the Albemarle County line and the intersection with US 33. 16, 000 vehicles per day pass through the busiest portion of 33, directly to the west of the 29 intersection. This general area includes the Gateway Center, located north of the intersection of Routes 29 and 33, which includes a Walmart Superstore in addition to a recently built Lowes Home Center and other nationally known businesses.

The 150,000 square foot Rapidan Center is located south of the intersection of 29 and 33, and the nearby Tierney Plaza contains a number of smaller retail establishments anchored by the Holiday Inn Express. Most of the existing services along this corridor are for larger volume retail, chain outlets, gas stations, and services catering to visitors passing through. In addition to commercial vitality, the Ruckersville area has potential for expansion of offices and professional employment.

Another prime location for retail and service expansion is downtown Stanardsville. Although there has been little growth here for the last several decades, there have been renewed economic development efforts in recent years. The Stanardsville area has lost a large portion of its former commercial base, as a result of fire, abandonment and conversion to housing. This commercial base must be restored, if the town is to have a critical mass of businesses to attract visitors/customers from other parts of Greene and beyond.

Because of its size and location, the Stanardsville area will not be attractive to national retail chains. Nor do town residents want it to be. Therefore, it must develop an ambience and market positioning built around its historic designation, small town atmosphere, and special services. A thriving commerce will be focused on a range of eating and tourist experiences, specialty stores and services, professional firms attracting employees who want to work in a relaxed rural environment and services for county government, town residents. Stanardsville would not compete with the Ruckersville corridor but serve a complementary function.

INDUSTRY

Although manufacturing and warehousing do not comprise a large share of the total Greene County economy, they serve an important function for economic development and job creation nevertheless. Most industry is concentrated along US 33 southeast of Stanardsville. The Spotswood Business Park on US 33, one mile east of Stanardsville, is a prime location for business offices, distribution/warehousing and light manufacturing. An older industrial park on US 33 west, the Greene Industrial Park, is also a location for business offices, distribution/warehousing and light manufacturing. A 70 acre tract of land on US 33 west, next door to the Greene Industrial Park, is currently zoned for industrial use. This land is available for future expansion.

To further enhance economic opportunity, especially in response to ancillary businesses of Rivanana Station, the development of a research and development use within the zoning ordinance may encourage those businesses into the Ruckersville/Corner Store area.

PROMOTING ECONOMIC DEVELOPMENT

Greene County has invested in future economic development with the establishment of the Economic Development and Tourism Department. The department is charged with the role of emphasizing Greene County's competitive features to attract new industrial, retail, commercial and tourist businesses, and to help existing businesses grow. A full-time director is hired to coordinate these efforts. The ED&T department performs a number of services, including helping prospective businesses with site selection, offering a variety of financing options to local enterprise, acting as a liaison between the

2015 Local Tax Rates		
Business/Personal Property:	\$5.00 per \$100	
Real Estate:	0.75 cents per \$100	
Meals:	4%, collected monthly	
Lodging:	5%, collected monthly	
Utilities (residential):	20% of first \$15.00	
Utilities (commercial):	20% of first \$42.50	
Machinery and Tools:	\$2.50 per \$100	
Utility Trailers :	Non-Taxable	
Mobile Homes :	0.75 cents per \$100	
Boats:	Non-Taxable	

business community and local government, and collecting data and creating promotional material. The Greene County website contains comprehensive information for customers, travelers, potential business startups or transplants, and existing businesses to meet their particular needs.

The Greene County Economic

Development Authority (EDA) is the local

government agency with the authority to issue bonds for the purpose of carrying out the economic development of the community, to manage the affairs of the Greene County Industrial Park, to establish and manage a revolving loan fund for the expansion of existing businesses and prospective new businesses, and to support the Economic Development Director's economic development initiatives.

The Greene County Chamber of Commerce is "dedicated to advancing the economic vitality and quality of life in the Greene County area so that the entire community shall prosper." The Chamber of Commerce facilitates interactions between local businesses and advocates for their concerns at a broader level. It hosts a Visit Greene County website, as well as coordinates volunteer efforts from the business community.

There are regional economic development organizations that support Greene County as well. The Central Virginia Partnership for Economic Development (CVPED) serves the greater Charlottesville area. In July of 2008, the Piedmont Workforce Network joined with CVPED to consolidate their workforce enhancement efforts with economic development. The CVPED Board of Directors consists of private and public sector leaders from around the region.

WORKFORCE PREPAREDNESS

Workers in Greene County are employed in various sectors, each requiring a different kind of training and experience. According to Virginia Employment Commission data, the major sectors of employment are relatively evenly split between professional jobs and service sector jobs in the fields of retail and

food services. A smaller, but not insignificant, portion of jobs are in the construction and manufacturing industries.

Piedmont Virginia Community College (PVCC) offers a number of college credits at the Eugene Giuseppe Center located in Stanadsville. In collaboration with William Monroe High School, high school students are given the opportunity to graduate with both a high school diploma and an Associates Degree. In additon, PVCC offers customized training programs for individual businesses to offer their employees. PVCC's main campus is located in Charlottesville, VA and offers a full range of Associate Degree programs, workforce certificates, and continuing education credits. Starting in the fall of 2016, PVCC will be offering an advanced manufacturing program at the main campus. In addition to PVCC, there are many opportunities in the region for workers to gain training and accreditation. The University of Virginia in Charlottesville is the largest institution in the region with the most comprehensive offering of professional degrees, including business, medicine, and law. James Madison University is located 30 miles from Stanardsville and is a highly regarded four year institution. The Greene County Technical Education Center, co-located with William Monroe High School, offers courses for training in a technical field for high school students as well as adults.

Greene County offers a well-educated workforce and a number of opportunities to further meet the training needs of local industry.

GOALS AND IMPLEMENTATION STRATEGIES: ECONOMIC DEVELOPMENT

- Create incentives for development in preferred commercial growth areas
 - Establish a fund to assist small business start-ups
 - Investigate the Community Development Block Grant opportunities for business district revitalization
- Encourage mixed-use development in growth areas that offers commercial, office and residential development. Support commercial growth in Ruckersville, Stanardsville and the Route 29 corridor within areas designated for growth by the land use plan.
 - Implementation strategies are thoroughly presented in the Land Use chapter of this Comprehensive Plan.
- Enhance image of Greene County as a business-friendly location
 - Continue to support Economic Development Authority activities, to include a Directory of Local Businesses and Economic Development Plan.
 - Encourage environmentally-friendly and low impact businesses
- Provide appropriate utilities needed for economic growth
 - Support rural broadband services in all portions of the county. Coordinate with other localities in the Thomas Jefferson Planning District to identify and secure funds necessary for county-wide service

- o Provide natural gas to key industrial growth areas
- o Provide a reliable water source needed for light manufacturing and growth in housing.
- Coordinate targeted areas of commercial development with adequate infrastructure: water, sewer and transportation
 - Work with utility executives and other service providers to help ensure their plans support the needs of Greene's economic development
 - Coordinate future land use and transportation improvements with economic development opportunities along the Route 29 corridor.
- Recruit businesses that have well-paying positions and provide services that are missing in the community
- Attract businesses that can capitalize on two significant nearby assets (Shenandoah National Park and Rivanna Station.)
 - o Create a Tourism Zone (rural artisan studios, special signage, etc.)
 - o Create a Defense Production Zone (potential rezoning, attraction incentives, etc.)
- Improve attractiveness and accessibility on the Route 29 corridor
 - Coordinate future land use and transportation improvements with economic development opportunities on the Route 29 corridor
 - Work with utility companies to lessen impact of future expansion immediately adjacent to Route 29.
- Identify and develop an economic anchor in Stanardsville that increases foot traffic, including tourism opportunities.
 - o Coordinate with the Town of Stanardsville and Stanardsville Area Revitalization (STAR).
 - Support the Town's applications for a Community Development Block Grant and other grant opportunities for future redevelopment.

EDUCATION

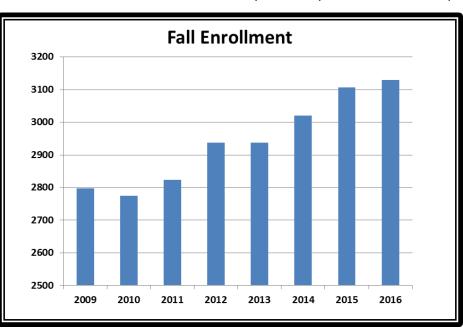
INTRODUCTION

Schools play a vital role in a county's quality of life. An excellent school system attracts businesses and economic development as well as families looking for a new community. The Greene County Public School Division offers a variety of programs and services designed to prepare students for citizenship and learning in the 21st century and consists of six schools: Nathanael Greene Primary School (grades Pre-K through 2), Ruckersville Elementary School (grades K through 5), Nathanael Greene Elementary School (grades 3 through 5), William Monroe Middle School (grades 6 through 8), Greene County Technical Education Center, and William Monroe High School (grades 9 through 12). 'The Nathanael Greene and William Monroe schools are located on one campus in Stanardsville, and Ruckersville Elementary is located one mile west of the intersection between US 29 and 33. The Greene County Technical Education Center is located on route 33. School administration offices are also in Stanardsville in the County Administration Building.

EXISTING CONDITIONS

Exact enrollment data is obtained on September 30th of each year for each public school in Virginia. The net change in enrollment between 2009 and 2016 has been +12%, surpassing projections at all levels. In order to address enrollment changes, aging school facilities, and evolving educational offerings, Greene County Publics Schools commissioned a Facilities Assessment Study in January 2016 both to develop

project options for current capacity issues driven by enrollment growth and establish a long range strategic vision for the schools. Awarded to VMDO Architects, the study analyzed educational program plans, site options, space needs, enrollment data, and other operational factors associated



with growth to prioritize recommendations and better position GCPS for 21st-century learning. An inclusive process, input was gathered from educators, administrators, parents, and the community through a series of small group and community meetings to hear ideas, needs, concerns, and visions for GCPS and the community. Initial findings illustrate that schools are approaching and in some instances

at capacity, in need of more qualitative program learning space, struggling with traffic flow and parking constraints and specifically at the High and Middle Schools, operating with aging equipment and insufficient spaces in kitchen and dining areas. In addition to the immediate cafeteria/dining needs, long range strategies, including the construction of a new school to provide capacity relief, looking for innovative ways to address operational issues and reconfiguring existing space to be flexible, adaptive, and aligned with qualitative programs, provide a roadmap to address growth and educational needs now and into the future. More information can be found on the Greene County Public Schools website at www.greenecountyschools.com.

The Greene County School system provides a multitude of benefits for families and the local economy through a rich history of academic success and strong community partnerships including Piedmont Virginia Community College. Through this partnership, 6% of students in the class of 2016 graduating from William Monroe High School concurrently earned their Associate's Degree. Growth of this early college program is expected with subsequent classes. In addition, there are a variety of dual enrollment course offerings for those wishing to earn college credit while in high school without pursuing a degree. The school division offers a variety of programs and services designed to prepare students for learning in the 21st century. The school system also offers a comprehensive experience for students in Career and Technical Education fields that include traditional and innovative course offerings, many of which are offered at the Greene County Technical Education Center. These course offerings and experiential learning opportunities ensure that the graduates of the school system are prepared to excel in both college and the work force. Below are highlights regarding Greene County Public Schools:

- Student to teacher ratio (Elementary 12:1, Secondary 12:1)
- Graduation rate consistently above the state average (94% for class of 2016)
- Over \$1.5 million in scholarships awarded to the class of 2016, approximately \$100,00 of which are from community organizations
- Usage of mobile, desktop, and laptop computing devices with high-speed wireless throughout the division
- One to one technology initiatives in use with multiple grade levels
- High School students provided the opportunity to participate in Blue Ridge Virtual Governor's School
- Enrichment opportunities including National History Day, Destination Imagination, Drone Club, Robotics
- Elementary STEM classes for all students integrating new technologies like 3D printing into the classroom
- Gateway and Project Lead the Way for Middle School and High School students for STEM exploration
- Continuing to expand fine arts (music, drama, visual arts), highlighted with the Annual Arts
 Festival
- Career and Technical Education provides students opportunity to explore career paths as well as life skills including agriculture, automotive technology, HVAC, architecture, building trades, cosmetology, culinary arts, and business.

- 75% of the Class of 2016 planned to continue formal education after high school schools include University of Virginia, College of William and Mary, Harvard, and Yale
- All schools Fully Accredited

GOALS AND IMPLEMENTATION STRATEGIES: EDUCATION

In 2016, the Greene County School Board adopted a Strategic Plan for 2016-2021. "Innovate 2021" shares the path to vision of "Empowering our community's children for life-long success" which includes objectives aligned with four core values and the mission to "Engage all students through learning that is innovative, personalized, and relevant". The plan in its entirety can be found at www.greenecountyschools.com

- Provide students with an education that focuses on the knowledge, skills, and abilities needed for students to excel in a rigorous and globally competitive world.
 - Enhance instructional practices to ensure that all students are engaged in learning that is relevant, rigorous, and personalized to his or her interests and challenges.
 - Implement a division-wide focus on actively engaging students in their progress toward excelling in college career, and life-long goals.
 - o Invest in the school division's employees by recruiting, hiring, and retaining the most highly qualified and innovative personnel.
- Fostering a learning environment where every student's individual academic, social, and emotional needs are fulfilled.
 - Ensure that the learning environment in all schools promotes a sense of belonging and connection so that students and staff feel they are supported in their efforts to be successful and contributing members of our community.
 - Ensure that our school environments are safe, encouraging, and supportive of all students and staff.
- Utilize an efficient and structured approach to managing fiscal, human, and capital resources in order to provide the most exceptional educational experience of each child.
 - Examine operating policies and procedures for standardization and clarity of implementation ensuring consistency across the school division.
 - Evaluate operational expenditures, inventories, and long range planning efforts to identify opportunities for cost savings and improved educational experiences.
- Foster positive relationships with all stakeholders in order to ensure that we meet the needs of every student in our community.

- o Effectively facilitate programs to ensure all students and families are academically, emotionally, and socially successful members of our community.
- o Implement a highly effective process of internal and external communication that ensures all stakeholders are engaged in our educational community.

LAW ENFORCEMENT AND EMERGENCY SERVICES

INTRODUCTION

Both the quality of life and economic development of Greene County depend upon law enforcement and emergency services. The need for effective provision of these services has grown as the county has grown in population. Calls for service have continued to increase each year, and the community needs to be assured that law enforcement and emergency services personnel are equipped to carry out their tasks in responding to this need.

Preparedness and prevention are as important as response efforts in creating a healthy and resilient community. From individual households to the larger government institutions, planning for the event of a crisis can substantially mitigate the damage or avert the crisis altogether.

Greene County is susceptible to many natural and man-made disasters. The county is particularly vulnerable to weather related emergencies. Because of the many threats our area faces, the importance of readiness as a county and for residents cannot be overstated.

EXISTING CONDITIONS

LAW ENFORCEMENT



The Greene County Sheriff's Office is responsible for providing law enforcement, courtroom security and the service of civil process for the jurisdiction of Greene County. Beyond investigative and patrolling functions of law enforcement, the Sheriff's Office offers services such as search and rescue, tactical operations, neighborhood watches, and public outreach / education. As the population of Greene County has grown, the Greene County Sheriff's Office has expanded. There were 20 sworn deputies in 1999; the number has grown to 34 in 2015. Over the last two years, Greene County deputies have

received an average of 37,000 calls for service a year. Deputy's received 3,675 more calls in 2015 than in 2014.

FIRE DEPARTMENTS

Greene County is served by three all-volunteer fire departments; Stanardsville Volunteer Fire Department, Ruckersville Volunteer Fire Company, and Dyke Volunteer Fire Company. These departments cover our entire jurisdiction; 157 square miles and our population of 18,804 (2013) residents. Basic geographical boundaries are established for their first due areas; however, most calls require a multi-department response. The individual fire department's front line / core apparatus consists of two engines, one tanker, and one brush truck. Command/chief vehicles, specialty vehicles, support type vehicles, and EMS first

response vehicles are also distributed within the departments. In 2014, there were 1,459 fire type related calls and 1,170 for 2015.

There was a Needs Assessment in 2008 by the Virginia Department of Fire Programs that identified training as a priority for Greene County. An updated Needs Assessment should be conducted within the next two years.

RESCUE SQUAD

The Greene County Rescue Squad is a non-profit organization that responds to emergency calls for service within Greene County and occasionally, outside of Greene County for mutual aid requests. Greene County Rescue Squad is a volunteer agency that is augmented by career personnel. Career personnel staff two ambulances 7 days a week, 6 A.M. – 6 P.M. and one ambulance 7 nights a week, 6 P.M. – 6 A.M.

The rescue squad's front line apparatus consists of five ambulances and three support / first responder type vehicles. In 2014, there were 2,264 rescue type related calls and 2,212 for 2015.

EMERGENCY COMMUNICATIONS

The Greene County Emergency Communications Center serves as the Public Safety Answering Point (PSAP) for Greene County twenty-four (24) hours a day, seven (7) days a week. It operates a three (3) channel, VHF conventional (analog and digital system), PL steered radio system, a Computer Aided Dispatch system, a Master Street Addressing Guide system, regional interoperability equipment and an enhanced 911 system. Staff currently consists of ten (10) full time employees and five (5) part time employees that are professionally trained and constantly strive to protect and serve individuals during emergency and non-emergency situations.

As the PSAP for Greene County, the Center is responsible for all 911 calls; this includes wireline, wireless, Text-to-911, and voice over internet protocol calls that originate within our borders. All requests for service are handled in a timely manner and dispatched accordingly to protocol.

Emergency Communications staff receives extensive training in radio procedures, emergency call-taking and standard operating procedures for all agencies for which services are provided. In addition, they must become certified with the Department of Criminal Justice and the Commonwealth of Virginia by attending a six day academy provided by the Central Shenandoah Criminal Justice Academy. At a minimum, staff must also be certified in the following courses:

- Communications Officer Basic
- Virginia Criminal Information Network / National Crime Information Center
- CPR / AED / First Aid
- Emergency Medical Dispatch
- Public Safety Telecommunicator I
- Fire Service Communications
- Crisis Intervention Training
- National Incident Management System 100, 200, 700 and 800

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EMERGENCY MANAGEMENT

The Greene County Office of Emergency Services is responsible for overall coordination of emergency services for Greene County. This includes coordinating local emergency planning, training, exercise activities and overseeing maintenance of the local emergency operations plan. The office is responsible for the operational response to local emergencies and natural or man-made disasters as well as overseeing the readiness of the Emergency Operations Center (EOC) and managing the EOC upon activation.

The Emergency Services Office maintains liaison with local public safety officials, local government, state and federal agencies, school officials, organized emergency volunteer groups such as the Red Cross, industry, and other organizations or agencies that may be involved in the four (4) phases of emergency management; preparedness, response, recovery and mitigation.

Greene County has an Emergency Operations Plan – All Hazards Plan to direct employees, volunteers, citizens, and visitors of Greene County through any type of situation that may arise. The plans consider a wide variety of natural or man-made hazards and lays out an organizational structure of roles, responsibilities, and protocols to address the incident.

Greene County also operates under a regional Hazard Mitigation Plan with other localities / entities though the Thomas Jefferson Planning District Commission. The plan addresses natural disasters only, such as flooding, storms with high winds, wildfires, tornadoes, and droughts, omitting human-caused events such as terrorism and chemical spills.

Greene County may be susceptible to events that can be prepared for with proper information beforehand. The Virginia Department of Forestry urges local governments or communities to know where their high wildfire risk areas are located, particularly in proximity to residences and businesses, the factors that make those areas at risk and what can be done to mitigate, or reduce this risk. Greene County established and implemented a Wildland Fire Mitigation Plan in 2013.

Citizens are encouraged to be aware of statewide drills/exercises that provide them with an opportunity to practice being prepared for certain type events. A disaster supply kit with provision of necessities is recommended for readiness in general. The supply kit should include the following:

- Water, one gallon of water per person per day for at least three days, for drinking and sanitation
- Food, at least a three day supply of non-perishable food
- Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert and extra batteries for both
- Flashlight and extra batteries
- First aid kit
- Whistle to signal for help
- Dust mask, to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place
- Moist towelettes, garbage bags and plastic ties for personal sanitation
- Wrench or pliers to turn off utilities
- Manual can opener

GOALS AND IMPLEMENTATION STRATEGIES: LAW ENFORCEMENT AND EMERGENCY SERVICES

GOALS AND IMPLEMENTATION STRATEGIES: LAW ENFORCEMENT AND EMERGENCY SERVICES

- Ensure that law enforcement and emergency services meet the needs of a growing population
 - Concentrate growth as outlined in land use chapter to allow for efficient and cost effective service
 - Expand emergency services through grants
 - o Reduce crime, the root causes of crime, and the fear of crime
 - Utilize a comprehensive community policing approach to engage residents, businesses, and relevant stakeholders in a wide variety of crime prevention strategies to prevent crime from occurring
 - Conduct monthly crime reviews to identify emerging crime patterns and trends
 - Deploy resources and design problem-specific strategies in hot spot area where crime patterns and trends are evident
 - o Promote ethical behavior among all personnel (employees, volunteers, etc.)
 - Promote prudent fiscal operations to produce cost-effective emergency services
 - o Assess the need for a Ruckersville EMS Station
 - Assess the need for a new EMS Station in Stanardsville
 - Request a Needs Assessment for emergency services in 2016 or 2017
- Support volunteers with paid fire and rescue staff, when required, to assure adequate 24-hour coverage
 - Recognize volunteers and recruit new volunteers
 - o Explore the need for an additional staffed paid EMS unit at night
 - Seek grant opportunities to secure additional funding
 - Foster teambuilding through training opportunities as a County
- Ensure that all staff and volunteers have the necessary equipment to perform their assigned tasks
 - Develop a communications equipment replacement plan, recognizing that equipment often has a 5-7 year life span
 - o Begin phases of replacing the current emergency communications system
 - o Implement the emergency apparatus replacement plan
 - Establish a system to provide continual evaluation of response capabilities and the resources required to ensure an effective delivery of services
- Ensure well-coordinated emergency response and disaster management planning
 - Ensure law enforcement and emergency services personnel have county-wide broadband coverage
 - Continue to support regional partnerships and programs
 - Establish the Local Emergency Planning Committee
- Maintain adequate School Resource Officer to safeguard school facilities and grounds as well as to spearhead community involvement in safety training and intervention

- Establish a Public Schools Safety Advocacy Group, including parents, administrators, teachers, and law enforcement personnel
- o Recognize the need for a SRO at each individual school
- Update the Emergency Operations Plan and Hazard Mitigation Plan to ensure that adequate resources would be available for various incidents
 - o Work with the Thomas Jefferson Planning District to update the Hazard Mitigation Plan
 - Utilize current EOP as support for securing grant funds
 - o Update EOP in 2017

NATURAL RESOURCES AND ENVIRONMENT

INTRODUCTION

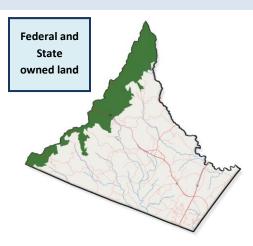
Greene County is blessed with many unique and valuable natural resources. Preserving these features for the use and enjoyment of future generations has long been a value shared by residents of Greene County. It is important to see these lands and waterways not only as wildlife habitat and functioning ecosystems, but also as integral to human life and economic activity. In many ways, from provision of recreation opportunities to a basis for tourism, their health represents the health of the entire county.

The county is situated in two river basins, the Rapidan and the Rivanna, both of which flow into the Chesapeake Bay. Maintaining clean water not only protects the drinking water source for residents, but helps to preserve fish habitat and the natural course of the waterways both within the county and for communities downstream.

There are a number of policies and strategies that have been and can be employed to meet the goals of preserving a healthy environment. While stopping all development and human use is not desirable, there are ways to ensure that lands can be effectively utilized and preserved for the benefit of future generations at the same time.

EXISTING CONDITIONS

Portions of Greene County, particularly the Shenandoah National Park and various smaller state-owned lands, are managed in order to preserve their natural condition while allowing the public to enjoy use of the land. The national park comprises a total of 197,438 acres, 79,579 of which are designated as wilderness. 95% of the park is forested, hosting over 1300 distinct species of plants. Within the park are also 50 species of mammals, 32 species of fish, 27 species of reptiles, 24 species of amphibians, and over 200 species of birds. There are over 60 peaks with an elevation above 3000 feet and over 90 mountain streams originating in the park. The Rapidan



Wildlife Management Area, made up of 1,169 acres near the border with Madison County, is the primary state-owned preserve with many of the same ecological characteristics of the national park.

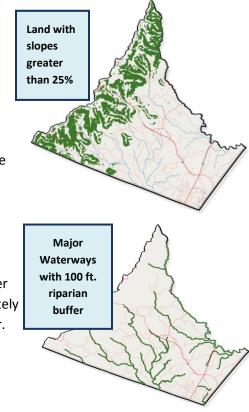
The western portion of Greene County is predominantly mountainous, containing a significant portion of the county's animal habitat, as well as the source of many waterways. The mountains also create the visual backdrop that gives Greene County its unique aesthetic character. One objective measure that often identifies such a landscape is "critical slopes," defined as land with a slope greater than 25% (as defined by Virginia Department of Environmental Quality.) This land is especially susceptible to erosion and landslides, as well as the loss of vegetation if disturbed.

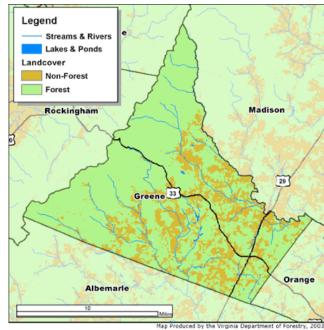
Greene County has a number of important waterways running through it. Waterways in Greene County flow into two watersheds. The northern portion of the county is in the Rappahannock watershed and the lower portion of the county is in the James watershed. Both are within the major watershed of the Chesapeake Bay.

The Rapidan River creates the northern-eastern border of Greene County with Madison County, and is a drinking water source for Greene County residents. The river begins in the Blue Ridge Mountains and flows into the Rappahannock River west of Fredericksburg. In 2001 the river was nominated by the EPA as a "Tier III Exceptional Waterway," but the Virginia Department of Environmental Quality rejected the application. The Conway River and the South River are two other important waterways completely contained within Greene County that flow into the Rapidan River. Swift Run, Blue Run, and Roach River flow through the southern portion of the county into the North Fork of the Rivanna River.

The federal Environmental Protection Agency requires states to

monitor waterways in accordance with the Clean Water Act. Polluted waters not only disrupt animal habitat and plant life but can create health risks for recreational activity and drinking water supply contamination. Waterways in Greene County scored relatively well with 2014 Virginia DEQ Water Quality Assessments. Two streams, Rippin Run and Preddy Creek were considered impaired enough to require development of a federal Total Maximum Daily Load, which sets the level of pollutants a waterway can have and still meet EPA standards. The Rivanna Conservation Alliance, through the ongoing StreamWatch program, monitors the health of waterways in Greene County and helps prioritize mitigation efforts.





Greene County is estimated to have 63.6% forest cover, which is 1.6% above the forest cover percentage for Virginia. 98% of Greene County's forest cover is hardwoods, most commonly Oak-hickory, and 2% natural pine. Direct ecosystem services of forests include water filtering, soil conservation, plant and animal habitat, and sequestering greenhouse gases.

All land and waters, from wilderness areas to residential backyards, function as wildlife habitat. The Virginia Department of Game and Inland Fisheries has listed 393 animal species as either documented or likely to be within Greene County. The list includes 25 species listed as endangered, threatened, or of very special concern. The Virginia Wildlife Action Plan identifies two distinct "eco-regions" for Greene County, the Blue Ridge Mountains and Southern Appalachian Piedmont. Because of soil type, climate, and landcover differences these two areas types host different ecosystems.

AVAILABLE PRESERVATION TOOL

The following tools are in addition to those presented in the land use chapter of the Comprehensive Plan. See the Land Use chapter for a description of conservation easements, land use assessment policy, Agriculture and Forestal Districts, clustering development, and conservation subdivisions.

CULPEPER SOIL AND WATER CONSERVATION DISTRICT (CSWCD)

The CSWCD develops a wide range of programs to encourage community participation in conserving and protecting soil, water and related natural resources, with particular focus on the impact of land disturbance and management of the Chesapeake Bay. District programs are funded by local, state and federal agencies with technical support from the USDA Natural Resources Conservation Service (NRCS). They support many programs for working lands conservation; grazing land management; forage management, which all benefit both producer and soil and water quality. Over 90 miles of streambank in pastureland have been protected in Greene through their programs since 2010; and as of today there are another 12.5 miles approved for funding and waiting for funds; all include grazing lands management.

CSWCD also facilitates a successful urban/residential cost share program designated as The Virginia Conservation Assistance Program (VCAP), which include ten best management practices.

In addition to supporting producers and homeowners, significant CSWCD resources are provided to teachers in Greene County for classroom presentations, outdoor field days called Meaningful Watershed Educations Experience, and teacher continuing education certification programs.

Website: http://www.culpeperswcd.org/

DARK SKY PROTECTION

In 2007, the Zoning Ordinance was amended to include a lighting ordinance to cut down on light pollution, reduce the effects of unnatural lighting on the environment, and encourage energy-efficiency. The ordinance allows for nighttime lighting for safety and utility, while minimizing its intensity and glare

from misdirected or unnecessary light sources. The primary benefit of dark skies is to allow people to see stars in a natural setting that may add value for tourism, quality of life, and amateur astronomy.

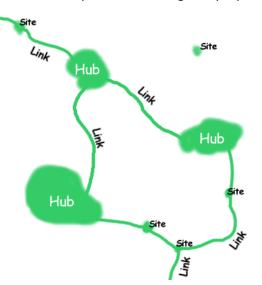
FROSION AND SEDIMENT CONTROL AND STORMWATER MANAGEMENT

Stormwater runoff has been recognized as an environmental concern for many reasons. Rushing waters tend to scour stream channels, which were evolved to hold only a certain capacity, and the excess sediment is eroded away and deposited further downstream. Additionally, water runoff can carry ground pollutants such as motor fuels and lawn fertilizers into the waterways. Under natural conditions, significant portions of rain water will be dissipated from evaporation into the air or infiltration into the soil, but surfaces such as roadways, parking lots, and rooftops promote greater overland flow directly to stream channels. These hard surfaces, also known as impervious surfaces, are often characteristic of increased development.

On May 13, 2014, Pursuant to Code § 62.1-44.15:27, of the State of Virginia, an ordinance was adopted by the County of Greene Board of Supervisors, as part of an initiative to integrate the County of Greene stormwater management requirements with the County of Greene erosion and sediment control requirements into a unified stormwater program. The program regulates any land-disturbing activity, such as grading, excavation, and construction.

GREEN INFRASTRUCTURE

Green infrastructure is a purposeful creation and preservation of a network of green space throughout the whole region. It is often depicted as a connected network of hubs and links. To achieve this vision, a county can use a composite of conservation tools or incentives. The challenge of green infrastructure is to navigate between the extremes of environmental preservation by strategically choosing which lands will remain open and ensuring that proper links are made between these spaces. Instead of reacting to



the pressures of development in a haphazard manner, the placement of a community's green infrastructure ought to be deliberate, science-based, and firmly within the public interest. This requires as much foresight as we put into the roads and other infrastructure needed to build the places we live in.

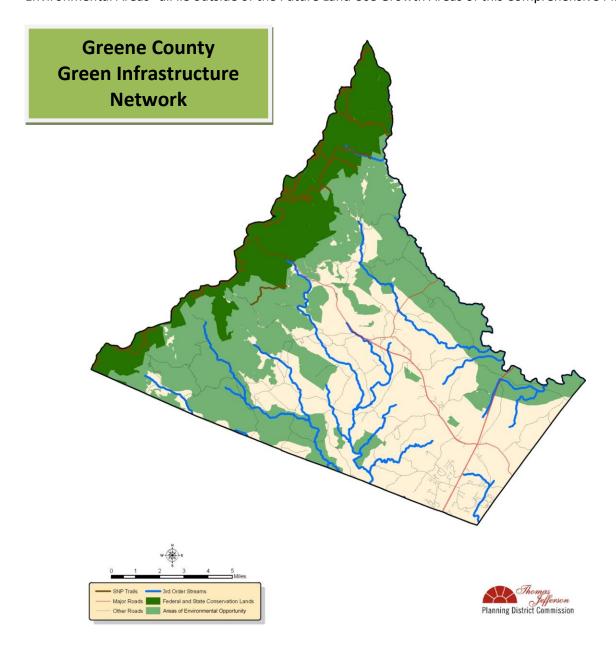
Green infrastructure recognizes that a connected system of open space dispersed throughout a region serves many goals. Securing natural amenities in close proximity to living spaces increases quality of life for residents and has been shown to enhance property values. Health benefits, from decreased obesity rates to better air quality, have long been associated with

sufficient green space nearby. Additionally, interconnected lands are vital to the preservation of

biodiversity. Protecting fragmented and isolated preserves of land for wildlife is not enough to allow a healthy ecosystem to function.

A 2009 Green Infrastructure Study, conducted by the Thomas Jefferson Planning Commission, analyzed several natural features throughout Greene County, labeling them "cornerstones layers." These layers on the map included known habitat areas, steep slopes, and buffers on major streams, existing trails and adopted greenway plans, and lands that are already protected. All of these factors were combined to create a composite map, which forms the basis of a potential green infrastructure network.

It should be noted that the areas marked on the Green Infrastructure Network map as "Critical Environmental Areas" all lie outside of the Future Land Use Growth Areas of this Comprehensive Plan.

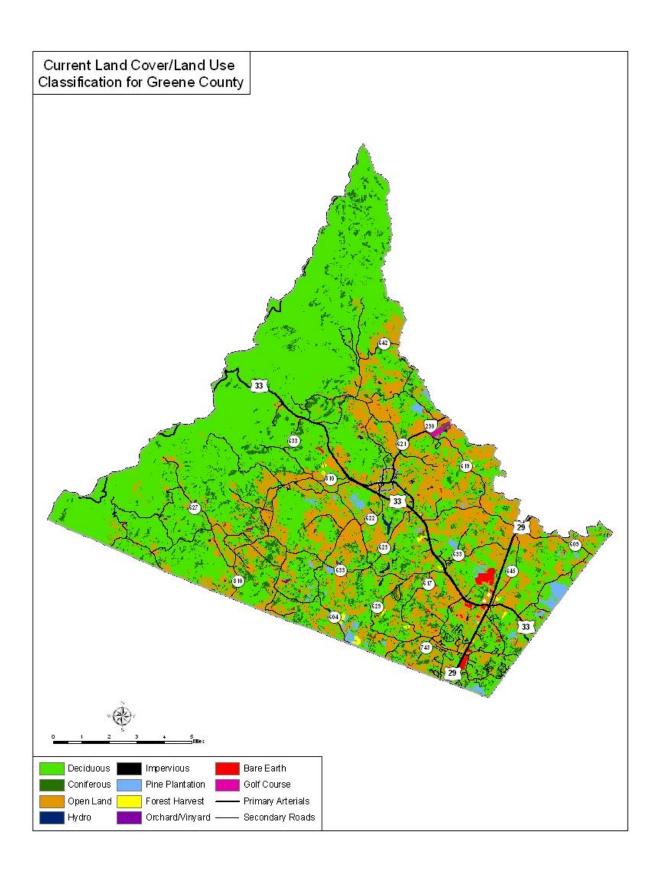


ENERGY EFFICIENCY PROVISIONS

Minimizing energy usage and the carbon foot print from buildings within the county can help meet important local and national conservation goals, as well as reduce County energy expenses. After an independent energy audit in 2010, the County has implemented numerous energy efficiency modifications. The leading energy-efficiency standard for buildings is LEED, which evaluates such measures as insulation and heating efficiency. The location of a building relative to other services is also an important determinant of energy usage. More compact development patterns tend to reduce travel volume and thus reduce total fuel usage.

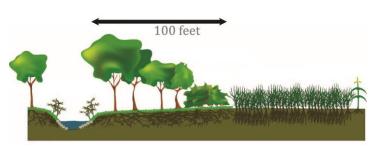
CURRENT LAND COVER/LAND USE CLASSIFICATIONS

The following map "Current Land Cover/Land Use Classification: Greene County" details the land cover/land use categories for the county: deciduous forest, coniferous forest, pine plantation, forest harvest, orchard/vineyard, golf course, bare earth, open land (e.g., pasture, lawn), water, and impervious surface (e.g., streets, sidewalks, roofs, parking lots). This map evaluates actual land cover to a high degree of detail in areas of specific interest, such as stream buffers, critical slopes, and potential conservation easements. This information may be used to evaluate potential sites for placement of greenways, parks, and schools. The map will be useful for assessing biodiversity and will be a source of data for more studies that correlate land use with stream health and for models that correlate land cover, hydrology, and the hydraulics of area streams.



RIPARIAN BUFFERS

Riparian areas are the interface between land and streams. These borders play an important role in soil conservation, biodiversity, and aquatic ecology.
Riparian buffers can protect landowners from soil erosion, and consequently protect the waterways downstream



from excessive sedimentation. They provide natural flood control by slowing down and absorbing some of the rushing stormwater passing through the channel. There are water quality benefits as well. A 100-foot wide strip of forest and grass can reduce sediment by 97 percent, nitrogen by 80 percent and phosphorus by 77 percent.

There are economic incentives in place in Virginia to encourage riparian buffers on farmland or forested land. The Department of Forestry offers tax reduction incentives for forest buffers. The U.S. Department of Agriculture runs a number of cost-sharing programs that Greene County residents may be eligible for, including the Conservation Reserve Program (CRP), Virginia Conservation Reserve Enhancement Program (CREP), and the Environmental Quality Incentives Program (EQIP). Virginia Department of Conservation and Recreation (DCR) also offers a number of opportunities for assistance equal to 25 percent of the landowner's out-of-pocket expenses incurred in installing the practices. Greene County would receive DCR assistance through the Culpeper Soil and Water Conservation District.



WATERSHED DESIGN STANDARDS

There are a number of ways to design residential, commercial or mixed-use developments to minimize the impact on water quality and quantity of runoff, for either urban or rural settings. Strategies include the use of pervious surfaces as much as possible to let water seep into the soil naturally. Green roofs are vegetative layers placed on rooftops to capture water before it ever runs to the ground. Roof drain disconnection, rain gardens, well-placed drainage basins, and various water treatment or filtration



practices are other elements of watershed design. At the household level, individuals can use rain barrels or other catchment devices to capture rainwater and reuse for household purposes. On May 13, 2014, the County of Greene Board of Supervisors, as part of an initiative to integrate the County of Greene stormwater management requirements with the County of Greene erosion and sediment control requirements adopted a unified stormwater program. The unified stormwater program is intended to facilitate the submission and approval of plans, issuance of permits, payment of fees, and coordination of inspection and enforcement activities into a more convenient and efficient manner for both the County of Greene and those responsible for compliance with these programs

CONTROL OF INVASIVE SPECIES

Much of the nature of the county's rural land is conveyed in its visual aspects: rolling, tree covered hills leading to the surrounding slopes of the Blue Ridge. Over its history, that view has changed, declined and returned through combinations of human, animal and plant impacts. The beauty of Greene County now faces increasing threats from invasive insects and plants, which threaten existing plant species. Although the County has no direct role in combating invasive species, citizens are encouraged to be aware of these emerging issues, perhaps with guidance or support from various state and federal resources.

GOALS AND IMPLEMENTATION STRATEGIES: NATURAL RESOURCES AND ENVIRONMENT

- Protect and conserve surface and groundwater resources, especially headwaters of key rivers and tributaries.
 - Limit the use of certain kinds of septic systems on slopes of 25% or greater to the extent allowable by State law.
 - o Promote the voluntary establishment of new riparian buffers around 3rd order streams to protect valuable surface water resources and maintain existing riparian buffers.
 - o Consider adopting Watershed Protection Design Standards.
 - For developments of 10 or more homes in A-1 or C-1 zones, consider the requirement for a hydrological study to demonstrate that the groundwater supply is sufficient to support the development.
 - Prior to issuing a building permit in areas not served by central water, require landowner to demonstrate that the well provides adequate water.
 - Protect water quality for fish in all existing streams and new water in impoundments or parks.
 - Cultivate awareness and practice of water conservation.
- Enact measures to protect Greene County's irreplaceable natural resources and become a model county for natural resource stewardship.
 - Consider initiating a Mountain Protection Plan process.

- Discourage road construction on slopes of 15% or greater. Permitted roads should follow the natural topography and minimize grading, cutting, and filling as much as possible.
- Discourage excessive changes to the existing topography or tree cover, particularly outside designated growth areas.
- o Reduce carbon footprint associated with the structure and location of buildings.
- Encourage voluntary monitoring and control of invasive species.
- Encourage open space dedication, riparian buffers, pervious surfaces and other best management practices.
 - Seek voluntary proffers for open space dedication, riparian buffers, limits to pervious surfaces and similar practices.
 - Support voluntary implementation of the recommendations of the county Green Infrastructure Study.
 - Encourage the voluntary dedication (through proffers and other tools) of land in conservation easements or Agricultural and Forestal Districts.
- Create governmental and public awareness of the importance of preserving natural resources while accommodating residential growth.
- Enact natural resource protection measures through development standards.
 - For residential development in rural areas promote conservation/cluster development to protect sites sensitive natural resources.
 - Minimize impact and preserve aesthetics of the rural countryside by buffers and natural vegetation screening.
- Refer to Green Infrastructure Study as a means to protect ecologically sensitive areas.

PARKS AND RECREATION

INTRODUCTION

A sufficient supply of parkland can enhance quality of life, public health, and property values for any community. A variety of park sizes and types are recommended by the Virginia Department of Conservation and Recreation to meet different recreational needs and allow green space access to the widest possible range of citizens. The Greene County Community Park is the centrally-located park for residents, and plans have been adopted to improve the park with additional playing fields, parking facilities, and landscaping.



Several recreational activities are also organized by the Department of Parks and Recreation, from regular organized sports to special excursions. As Greene County considers how to bolster the parks and trail systems, a variety of outside funding sources may prove to be beneficial.

Locally owned private facilities also provide recreational opportunities which are situated throughout the County.

In addition to local and private programs, the Shenandoah National Park includes much of the western third of Greene County, and provides significant opportunities for hiking, camping, educational programs and picnicking for residents and visitors. The Rapidan Wildlife Management Areas provide similar access to trails and hiking.

EXISTING CONDITIONS

The Greene County Parks and Recreation department oversees operations of the county-owned parkland as well as numerous recreational activities held throughout the year. The stated mission of the department is to seek to enrich the quality of life for all members of the community by offering leisure activities and special events throughout the year in a fun and learning environment. Along with county staff, the Greene County Parks and Recreation Advisory Committee helps oversee the recreational programming and park functions.

RECREATIONAL ACTIVITIES

The Greene County Parks and Recreation Department organizes and runs a variety of events, sports, and classes for all ages. There are typically over 2100 participants for all of the programs per year. Volunteers, who assist the two staff members, make important contributions toward facilitating activities and administration. During summer months, sports camps are offered for soccer, volleyball, field hockey, cheerleading, football, basketball, and lacrosse. Organized sports for children and adult intramurals are also held on a weekly basis throughout fall, winter, and spring seasons. There are programs for classes, including dog education, painting, hunting education, and other skills. Day-trips and overnight excursions are also organized.

GREENE COUNTY COMMUNITY PARK

Greene County has one district park, the Greene County Community Park. It is comprised of 64 acres of county-owned land purchased in 1996, located along Route 33 between Stanardsville and Ruckersville. The park currently offers soccer fields, a children's playground, a disc golf course, nature trails for jogging and walking, and a large picnic shelter built by the local Ruritans club.

In September of 2008, the County Board of Supervisors adopted a Master Plan for phased improvements to Greene County Community Park. The first element of phase one that was completed in 2009 was a newly paved road and bikeway to access the park from Route 33 to the north. The next project of phase one that was completed was a comfort station and concession stand in 2011 and a multi-use basketball half courts in 2014. To finish phase one would entail building an expanded paved parking lot and four tennis courts. Phase two of the Master Plan calls for a service road to another section of the park, where there would be a community center with a pool and gym, three softball fields, a parking lot and a skate park.



PARK CLASSIFICATIONS

The Virginia Department of Conservation and Recreation and the National Parks and Recreation Association have adopted standards for a variety of park types to meet different needs of the community: Neighborhood parks, Community parks, District parks, and Regional parks. They also make recommendations for how many of each class of parks is appropriate for a given population. Under these standards, Greene County Community Park is classified as a district park.

Classification of Parks

Adapted from the 2007 Virginia Outdoors plan and the National Recreation and Parks Association



Neighborhood Park

- 3 acres per thousand citizens
- · Within 15 minute walk
- Also known as "pocket parks"
- Often feature playgrounds, ball courts, benches and steps

McGuffy Park, Charlottesville



Community Park

- 3 acres per thousand citizens
- · Serves 2 · 5 neighborhoods
- Ideally accessed by walking or biking, but within 15 minute drive
- Includes larger facilities, such as lighted game fields, swimming pools, and picnic areas

Quincy Park, Arlington



District Park

- 50 acres and above
- · 4 acres per thousand citizens
- Within 15 20 minute drive, but also accessible by pedestrians and bicycles
- Includes recreational activities, but also natural amenities such as jogging trails, lakes, and open land

Greene Community Park, Greene County



Pleasant Grove Park, Fluvanna County

Regional Park

- 100 acres and above
- Within 25 minute drive, but also accessible by walking and cycling
- Often managed by multiple jurisdictions
- Open space and many natural amenities

GOALS AND IMPLEMENTATION STRATEGIES: PARKS AND RECREATION

- Create a county park in Ruckersville.
 - o Consider siting off Rt. 29 South in Ruckersville area.
 - Connect the community park with a hike/bike trail following the recommendations of the county Green Infrastructure study.
 - Planning should move quickly before growth in development makes land acquisition difficult.
 - Secure grant money for property acquisition.
 - o Incorporate a park into new Ruckersville town center.
- Complete Phase one and Two of the master plan for Greene County Community Park
- Support the development of a public swimming area.
 - Complete the pool planned for Greene County Community Park, and consider swimming facilities in a new Ruckersville park.
 - o Consider recreational uses at a future reservoir site.
- Continue informing residents of programs.
 - Conduct county-wide traditional mailings and email newsletters.
 - Continue posting current opportunities for involvement on county web site in order to inform all Greene County residents of recreational activities.
 - Have flyers available in libraries, schools, and other strategic locations.
 - Provide information for outdoors activities, such as hiking, hunting, and fishing (in cooperation with VA Department of Game and Inland Fisheries.)
- Provide additional activities for children, teens, and adults.
 - o Grow existing sports programs and create new programs as demand allows.
 - Coordinate activities with existing private and/or religious organizations.
- Encourage "pocket parks" and interconnected trails in new neighborhoods.
 - o Encourage new developments and neighborhoods that include small parks and trail.
 - Support efforts to create a pocket park and hiking/biking trail in Stanardsville.

TOURISM

INTRODUCTION

Greene County has several assets for a vital tourism industry. Proximity to Shenandoah National Park and many acres of scenic rural lands provide an ideal backdrop for visitors, and various amenities exist to serve those who do visit. When compared to counties in similar situations, it is clear that Greene County has not completely tapped into its full potential as a tourism destination.

Several activities and programs, including a Visitor Center in Ruckersville and events held throughout the year, have been initiated to help local businesses capitalize on these opportunities. The Economic Development and Tourism Department, Greene County Chamber of Commerce and Standardsville promotes the county, town, and surrounding areas through its websites. Statewide programs also assist in building exposure for tourism. Likewise, the preservation of the rural character and scenic beauty of the county is equally important for building a healthy tourism industry.

EXISTING CONDITIONS

In the last several years, Greene County has made a concerted effort to bolster the tourism potential of the county and the Town of Stanardsville. It has been recognized that the tourism industry can be an important driver of economic development, as well as a revenue source for local government. The current goals set forth are to identify the inherent strengths of Greene County and concentrate on enhancing these assets, retain the rural character of the county that visitors seek, coordinate tourism efforts regionally, and inculcate a number of visitor services within the county.

Tourism is clearly intertwined with many other elements of this comprehensive plan, especially economic development, natural resources, parks and recreation, land use, and transportation. However, it is still important to reflect upon how the momentum generated from these other endeavors can be effectively harnessed for the benefit of the tourism industry in Greene County. This requires a coordinated planning approach.

The Town of Stanardsville was awarded Planning Grant funds by the Virginia Department of Housing and Community Development for the preparation of a comprehensive Business District in attempts to stimulate the economic development and tourism within the Town. The proposed Downtown Revitalization Project requests grant funds for façade improvements on commercial buildings; apartment upgrades on several housing properties; blight removal; and construction of a farmers' market / performance pavilion structure behind the County Administration building. The grant was awarded in September, 2016.

The Virginia Tourism Corporation (VTC) estimates the economic impact of travel for each locality in the State. The totals are drawn from a variety of travel related expenses, which includes, but is not limited to, tourism spending. In 2014, \$18.02 million was spent in Greene County compared to 2008, where \$15.17 million was spent. This is an 18.7% increase in the monies spent by travelers in Greene County.

The primary tourism-related tax revenue sources are lodging and meals taxes. The current Greene County meals excise tax rate is 4% and the lodging tax is 5%, which is commensurate with many other similar localities in the state. In 2015, \$686,098 was collected for meals tax, and \$173,900 was collected for lodging tax. In 2008, \$460,000 of meals and lodging taxes were collected.

HISTORIC RESOURCES

Heritage and cultural tourism is an important sector of the overall tourism industry in America. The region surrounding Greene County, with world-class attractions such as Montpelier, Monticello and the University of Virginia, is particularly well suited for capturing this market. Greene County itself has historical attractions and relevant services with potential to capitalize from some of the regional market. Whether historic sites are destinations in their own right or ancillary features of an overall pleasant environment, Greene County can benefit from



recognizing and using its historic resources as economic assets and community-building tools.

The National Register of Historic Places and the Virginia Landmarks Register contain eight entries for Greene County:

- 1. The Greene County Courthouse
- 2. The Octonia Stone (A marking for the northwest corner of the Octonia land grant in 1722)
- Gibson Memorial Chapel and Martha Bagby Battle House at Blue Ridge School
- 4. Skyline Drive Historic District
- 5. Beadles House in Stanardsville
- 6. Powell-McMullan House in Stanardsville
- 7. Stanardsville Historic District

The highest concentration of historically-important structures is found in downtown Stanardsville, making this an obvious focal point for heritage tourism. The town contains over 20 buildings that date back to the early 19th century, including some that are currently in use as Bed and Breakfasts. The Lafayette Inn, built in 1840, is a well-known restaurant and Bed and Breakfast. The inn was recognized by the Virginia Winery Association as Virginia's Restaurant of the Year in 2006. In small towns such as Stanardsville, the concentration of historic resources can create a vital synergy that is greater than the sum of its parts.

NATURAL RESOURCES AND AGRITOURISM

The Shenandoah National Park is perhaps the single most important resource for tourism to Greene County. A total of 15,285 acres of the national park reside in Greene County. The Swift Run Gap entrance, one of four entrances to the park, is directly accessible from Route 33. This entrance connects to the scenic Skyline Drive and the park's most popular trail up Old Rag Mountain. In 2009, the National Park Service recorded 1.3 million visitors to the park in 2015, spending over \$87.9 million. In order to attract an increasing share of these visitors, the county would need to orient the range of services and promotional efforts toward meeting their specific needs.

Hunting and fishing draw visitors to the preserved land of Greene County. There are a total of 15 bodies of water for fishing in the county. The South River and mountain streams running from the national park are also popular trout fishing sites. The Rapidan Wildlife Management Area is a 10,326 acres piece of land along the border of Greene and Madison Counties operated by the Virginia Department of Game and Inland Fisheries. This natural area is a popular place for wildlife and fishing activities. While hunting, fishing, wildlife viewing are the primary uses of the area, other outdoor activities compatible with the wildlife management area include hiking, primitive camping and nature photography.

Road biking is another outdoor recreational activity that draws visitors. Road bicycling is extremely popular along Skyline Drive, with a number of commercial businesses operating organized tours. On the other hand, opportunities for mountain biking are currently very limited in Greene County. The national park does not allow biking on any trails, and there are few publically accessible trails elsewhere in the county. The Charlottesville Area Mountain Biking Club does not include any trails in Greene County on its recommended list.

Agritourism is another important sector. Farmers' markets are growing in popularity around the country as anchor tourist destinations. Because these markets tend to showcase the unique characteristic of a community, in terms of locally grown foods and handmade crafts, they typically draw tourists who are looking for a retail experience they cannot replicate at home. Efforts are underway to create a permanent location for a Farmers Market in the Town of Stanardsville.

Wine tastings are another growing form of culinary tourism, and Virginia is gaining stature as a nationally-recognized region for vineyards. The Monticello Wine Trail, billed as a "guide to the birthplace of American Wine," passes through Greene County, with stops at Stone Mountain Vineyards and Kilaurwen Winery. Both Stone Mountain Vineyards and Kilaurwen Winery offer tastings and tours seasonally Autumn Hill is another popular vineyard in Greene County, with tastings two weekends a year.

TOURISM PROMOTION

A number of entities are involved with promoting tourism in Greene County. The Greene County Visitor Center is located along Route 29 with exposure to the large volumes of vehicles that travel along this corridor. The center directs visitors to destination sights and appropriate services in the county, and

disseminates materials such as maps and brochures. State certification requires the visitor center to promote out-of-county attractions as well. The Economic Development and Tourism Department contracts with a private entity and both work together to run the visitor center, coordinate other promotional material, and maintain a website. The department's website, www.exploregreene.com, promotes local lodging, outdoor activities, vineyards, artisans, antiques, dining, wedding venues, and historic sites.

The Charlottesville-Albemarle Convention and Visitors' Bureau presents visitors information for the region, including many sites and services in Greene County. Other certified centers in the area also point to Greene County attractions. At the state level, a "Virginia is for Lovers" guide and website is published each year for attractions throughout the state.

MAJOR PUBLIC EVENTS

Public events are not only celebrations for the community itself, but often serve as an important draw for visitors from outside the county. Dates may vary from year to year.

- Strawberry Festival
- Stanardsville Independence Day Celebration
- Greene County Fair
- Tour de Greene
- Virginia Clay Festival

GOALS AND IMPLEMENTATION STRATEGIES: TOURISM

- Preserve important scenic, historic, cultural and natural resources as crucial to tourism.
 - Coordinate the preservation of important scenic, historic and cultural resources with the county's future land use plan and appropriate ordinances, including the impact on the Shenandoah National Park entrance corridor, view shed, and noise shed.
 - Consider adopting a Purchase of Development Rights program for sites of interest to promoting tourism.
 - Assist the Town of Stanardsville, STAR and the Greene County Historical Society in efforts to enhance the county seat as a tourist attraction.
- Provide information for residents and visitors about local events.
 - Develop and keep up-to-date county-wide tourism website.
 - o Focus tourism promotion on the connection with Shenandoah National Park.
 - Support the major public events list, and promote events such as "Tour-de-Greene" bicycle ride.
 - Create informational maps for tourists and citizens on hiking, biking, scenic drives and other tourist activities and sites.
 - Identify, map, and present to the public all historic civil war sites in Greene County.
- Establish and fund an organizational structure to plan, implement and coordinate tourism activities/events
- Strategically attract tourist from the Shenandoah National Park, Massanutten Resort, and Shenandoah Crossing Resort
- Create an environment through tourism that promotes economic vitality, generating new opportunities for business, more employment, and increased local tax revenues.
 - Promote and maintain the Visitor Center in Ruckersville
 - Promote agritourism and eco-tourism.
 - o Promote/support artisan businesses.
 - o Promote a permanent, formal Farmer's Market in Stanardsville.
- Encourage travelers on major thoroughfares to stop and frequent local businesses
 - Work with Virginia Department of Transportation to increase tourist-oriented signage

WATER SUPPLY AND WASTEWATER

INTRODUCTION

The availability of sufficient clean water is essential to the growth and subsistence of Greene County. All drinking water in the county is derived from either groundwater sources pumped through individual wells or through the Rapidan Service Authority (RSA), which draws from the Rapidan River running along the border of Greene and Madison counties. To ensure adequate water supply for the future of the community, it is important to not only protect the current supply but determine that growth in water demand will be fully aligned with the infrastructure necessary to deliver it.

Adequate wastewater treatment capacity is critical to meet sustainable municipal, business and residential needs. Adequate long-term wastewater treatment is important for the long-term viability of the county's different communities.

Greene has experienced rapid residential and commercial growth over the past two decades. With this growth comes increased demands for services and infrastructure. In order to best use limited resources, both water supply areas and wastewater treatment service areas should be consistent with the Future Land Use plan as developed in this Comprehensive Plan.

Adequate and reliable provision of water and wastewater services to the County's Designated Growth Areas is a key factor in enabling future focus of growth in those areas, diverting growth pressure from the groundwater resources of the rest of the County.

EXISTING CONDITIONS

POTABLE WATER SUPPLY

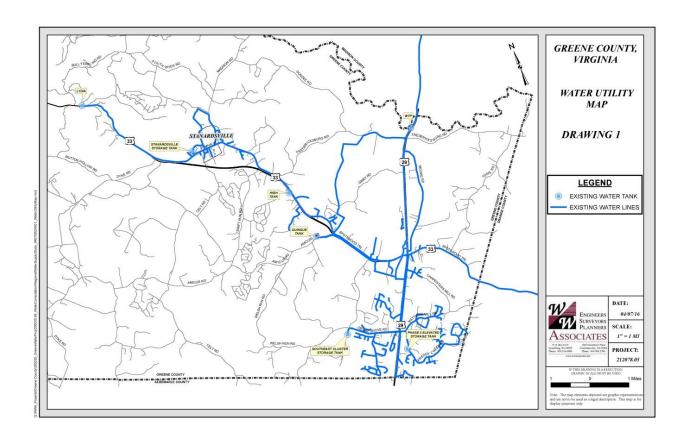
The water supply needs of Greene County are serviced by the Rapidan Service Authority (RSA). The RSA is a quasi-governmental body that operates and maintains water and sewer systems in various portions of Greene County, as well as Orange and Madison Counties. Their offices are located on Spotswood Trail near the Greene County Industrial Park. The General Manager reports to the RSA Board, which has two members from Greene County appointed by the Board of Supervisors. The RSA has operated in Greene County since 1969.

Water sources can be categorized as surface water (rivers and lakes) or groundwater (wells). The primary surface water source for the county is the Rapidan River, which has an average flow of 97 Million Gallons per Day (MGD). According to state standards, the river has a safe yield at the point of intake of 1.15 MGD, which is the maximum amount that can be extracted for use during a low-flow day. Additionally, the County has developed a groundwater well on Route 29 with a capacity of 0.09 MGD. The County also



drilled wells that have not been developed, one at the County Park (0.09 MGD) and one south of Route 33 near Stanardsville (0.115 MGD). These wells were drilled to supply water as a short term solution until the new reservoir is constructed. RSA's water treatment plant for Greene County, which draws water from the Rapidan River, is located on Route 29 just south of the Greene/Madison County line. The plant has a maximum treatment capacity of 1.15 MGD and was last upgraded in 2001. The U.S. Geological survey also operates a gauging station, a facility used to monitor and test water conditions, downstream of the intake on the Madison County side of the river.

The existing water distribution system of pipelines and tanks is concentrated within the county's designated growth areas along the Route 29 and Route 33 corridors. Expanded infrastructure has been proposed, particularly for the Ruckersville area, to meet growing demands from development.



Based on the water supply Statement of Need made by WW Associates for the Regional Water Supply Plan dated April 2008, revised February 11, 2011, the area's water demand will exceed the capacity of the water treatment plant on peak days by 2020. The study recommends a new pump storage reservoir with a minimum safe yield of 3.5 MGD and a new water treatment plant with a capacity of 3.0 MGD, expandable up to 6.0 MGD to meet future demand. Figure No. 1, Table No. 1 and Table No. 2 indicate the growth projections and the water deficit prior to the construction of the new facilities

Figure No. 1 Municipal Community Water System Demand Average Daily and Peak Day Demand

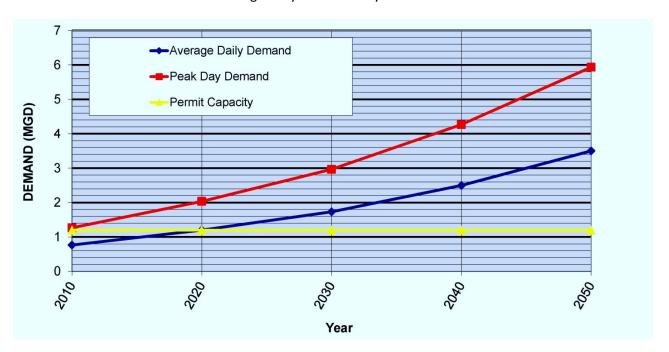
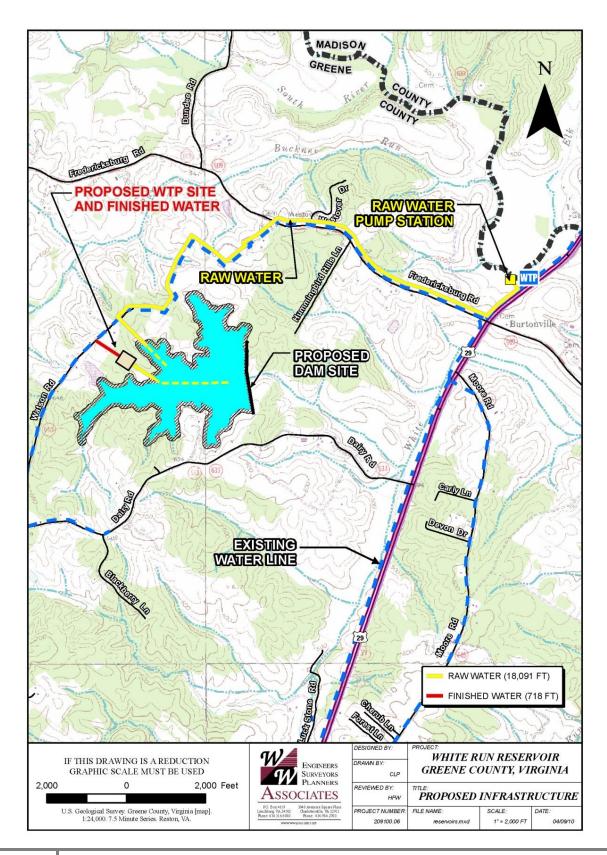


Table No. 1 Municipal Community Water System Demand Projections Average Daily Demand Adequacy Analysis					
Year	Average Daily Demand (MGD)	Surplus or <mark>Deficit</mark> (MGD)			
2010	0.77	0.43			
2020	1.20	0.00			
2030	1.73	-0.54			
2040	2.50	-1.30			
2050	3.50	-2.30			

Table No. 2 Municipal Community Water System Demand Projections Peak Day Demand Adequacy Analysis					
Year	Peak Day Demand (MGD)	Surplus or <mark>Deficit</mark> (MGD)			
2010	1.27	-0.07			
2020	2.03	-0.84			
2030	2.97	-1.77			
2040	4.27	-3.07			
2050	5.93	-4.74			

The County has acquired a pumped storage reservoir site for this purpose on an unnamed tributary of White Run. Figure No. 2 shows the reservoir site and its relationship to the existing water system. The existing water treatment plant will transfer raw water to the new reservoir site. A new 3.5 MGD water treatment facility will be constructed at the new reservoir site. A Joint Permit Application was prepared in July, 2011 and submitted to the Corp of Engineers. The JPA has been approved and the reservoir project is now in the planning stages.

Figure No. 2



WASTEWATER

The Rapidan Service Authority also manages wastewater collection and treatment for Greene County. All Greene County wastewater is processed through the Stanardsville and Ruckersville Wastewater Treatment Plants. A 0.6 MGD secondary wastewater treatment facility was constructed in Ruckersville in 2003 to service the U.S. Route 29/33 corridor area of Greene County. The Ruckersville Wastewater Treatment Plant is owned by Greene County and operated by Rapidan Service Authority. The plant is currently purchasing nutrient credits to meet the requirements of the Chesapeake Bay Act. A future planned upgrade will allow the plant to remove nutrients,

The wastewater treatment plant includes mechanical screening and aerated grit removal as a preliminary treatment process to remove primary solids and protect downstream mechanical equipment. An activated sludge process consisting of a continuous-flow oxidation ditch and two circular clarifiers provide biological treatment and suspended solids removal. The plant has future provisions for post filtration for suspended solids removal and potential denitrification. A future aluminum sulfate chemical feed system will be utilized to augment total phosphorous removal. Ultraviolet disinfection and post aeration are included on the treated effluent prior to discharge from the plant. Waste sludge generated by the treatment process is stabilized via aerobic digestion. Stabilized sludge is mechanically dewatered with a centrifuge facility prior to landfill disposal.

GOALS AND IMPLEMENTATION STRATEGIES: WATER AND WASTEWATER

- Establish a safe and reliable water supply to meet the projected needs for business and residential growth through 2050
- Proceed with the construction of the White Run pumped storage reservoir project.
- Promote water conservation
 - Encourage rainwater harvesting (rain barrels), abandoned well capping, and green roofs where possible.
- Protect valuable water resources through education and implementation of riparian (rivers and streams) buffers
 - Support and encourage landowners who want to implement riparian buffers
- Provide adequate water pressure and supply for Stanardsville to encourage commercial and residential development.
 - Implement the completed engineering design for a new Stanardsville area water and sewer network
- Ensure the integrity of wastewater treatment facilities through comprehensive system upgrades, including the Town of Stanardsville
- Ensure compliance with current and future VPDES regulations, including Nutrient Reduction.
- Direct residential and commercial growth to designated areas by proactively planning and constructing services which will be restricted to those identified areas
 - Develop residential and business growth in higher density areas where adequate water and sewer supply is provided
- Utilize public/private partnerships to assist in funding wastewater treatment system construction
- Ensure the health, safety, and welfare of Greene County citizens by requiring connection to public water and sewer within the water sewer service area.

SOLID WASTE

INTRODUCTION

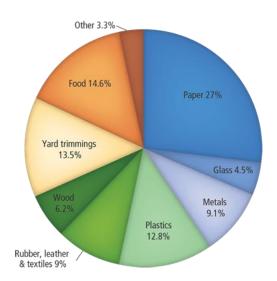
As Greene County grows in population, the waste stream has also grown and its management has become more complex. Currently, solid waste in the county is handled by the county through the Greene County Transfer Station and by a number of private waste haulers. Many of the private haulers take waste to transfer stations and landfills outside of the County. Residents and haulers can take their waste to the Greene County Transfer Station where they pay a fee to dispose solid waste, or recycle items for free. In recent years' curbside trash pickup has become available to residents in subdivision. These services are provided by private haulers for a fee. Businesses and commercial enterprises also contract with these haulers for waste removal. Since 2009 the amount of waste passing through the Greene County transfer station has declined as more residents have taken advantage of curbside trash services offered by private sector haulers. In 2008 the Greene County Transfer station handled 65,066 tons of solid waste. By 2014 the facility was handling 23,643 tons of solid waste.



EXISTING CONDITIONS

The EPA estimates that 2013 the per capita solid waste generation rate is 0.8 tons of waste, of which approximately 34% is recycled nationally. Figure 1 illustrates how the national waste stream is broken up by source material.

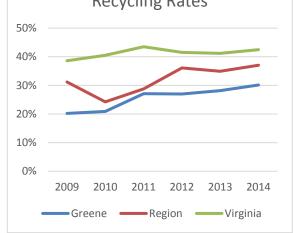
In 2014, the Greene County Transfer Station received a total waste stream of 23,643 tons, 16,519 of which were not recycled and were sent off to be landfilled. These figures include waste received from other localities and does not include waste that was handled by private haulers. Therefor the numbers represent only a percentage of the total waste generated in the County and therefore do not accurately depict waste generated by just Greene County residents. Reported recycling rates were based on the total waste stream received at the transfer station. Of the disposed solid waste, there were 15,548 tons of residential waste and 970 tons of commercial waste.



An additional 7,124 tons of Greene County solid waste was recycled in 2014, with paper, metal, and wood waste comprising the bulk of recycled materials. Greene County's recycling rate was 30.1% in 2014. Figure 2 illustrates the changes in recycling rates from 2009 to 2014

Figure 1 Total MSW Generation by Material (2013) Source:

Recycling Rates Waste Generation 50% 20,000 40% 15,000 30%



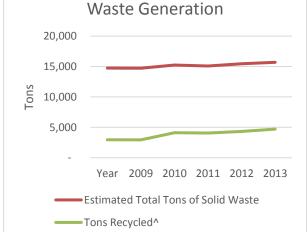


Figure 2 Recycling Rates and Waste Generation Rates

The county's former landfill, located near the Greene County Community Park, has been closed since 1992 and the land being managed for future reuse. All waste is now processed at the Greene County Transfer Station and sent to the Amelia County landfill. The transfer station is equipped to handle 150 tons per day. Recycling and re-use activities may expand at this site. The central location of the site is convenient for collecting waste for the entire county. Transport of waste to the transfer site is conducted by individual households and businesses, usually under contract with professional services.

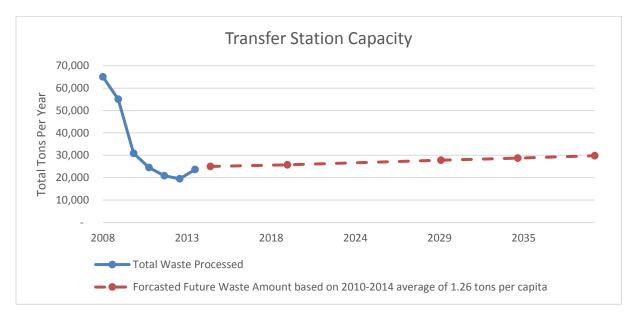
Each year members of the Thomas Jefferson Planning District Commission Waste Planning submit a report on solid waste and recycling activities in the planning region. These reports are used to ensure that the region is meeting the state mandated minimum recycling rate of 25% and that activities are occurring within compliance of the Regional Solid Waste Management Plan. The table below contains information on the 2014 Recycling Rate Report.

	Charlotte sville			
	& Albemarle	Fluvanna	Greene	TOTAL
Municipal Solid Waste Disposed	125,797.8	4,594.1	16,519.0	146,910.9
Household	125,797.8	4,594.1	15,548.5	145,940.4
Commercial	,		970.5	970.5
Institutional				
Other (non-industrial)				
Primary Recyclable Materials	75,533.1	3,755.3	7,124.7	86,413.1
Paper	10,472.4	29.3	3,393.2	13,894.9
Metal	10,611.8	35.7	2,000.2	12,647.7
Plastic	274.6	0.0	1,416.0	1,690.6
Glass	407.6	0.0	94.0	501.6
Commingled	46,059.3	1,070.1	0.0	47,129.3
Yard Waste (composted or mulched)	2,185.8	0.0	0.0	2,185.8
Waste wood (chipped or mulched)	79.3	2,400.0	162.0	2,641.3
Textiles	416.4	143.8	10.0	570.2
Tires	240.5	31.4	12.0	283.8
Used Oil	455.8	29.5	21.0	506.3
Used Oil Filters	11.5	1.3	0.0	12.8
Used Antifreeze	24.2	2.7	1.0	27.9
Batteries	205.4	0.0	15.2	220.5
Electronics	226.0	11.6	0.0	237.6
Inoperative Motor Vehicles	0.0	0.0	0.0	0.0
Other - fat, bone, grease	406.1	0.0	0.0	406.1
Other - composed sludge	2,897.9	0.0	0.0	2,897.9
)ther- Composted Food Waste	558.8	0.0	0.0	558.8
Solid Waste Reused	58.0			58.0
UVA MERCI	37.0			37.0
UVA Move Out	21.0			21.0
Non-MSW Recycled	72,995.0			72,995.0
VDL C&D Recycling	68,098.0			68,098.0
UVA Ash	4,897.0			4,897.0
Base Recycling Rate	37.5%	45.0%	30.1%	37.0%
DEQ Approved Rate (With Credits)				42.0%
Total Waste Generated	201,330.9	8,349.4	23,643.7	233,324.0
Population	151,490.0	25,970.0	19,618.0	197,078.0
Per capita	1.3	0.3	1.2	1.2
Expected Waste	119,677.1	20,516.3	15,498.2	155,691.6

The Thomas Jefferson Planning District maintains a regional Solid Waste Management Plan in order to meet state requirements and assist member localities in their own waste management. Several objectives for the region are defined in the plan.

- 1. Increase recycling of reusable materials and exceed the state mandated recycling rate of 25% for the region
- 2. Minimize the use and unsafe disposal of hazardous material
- 3. Promote a sense of individual responsibility for limiting waste
- 4. Increase individual and cooperative efforts to reduce waste

As of October 2011, when the regional Solid Waste Management Plan was last amended, there were no plans to expand the operations of the Greene Transfer Station. Based on current trends there is now an excess of capacity available at the Greene County Transfer station. This excess capacity is expected to continue as more solid waste is handled by private haulers and private transfer stations located outside of the County. It is anticipated that the current hybrid model will be adequate to address the County's solid waste needs over the next 30-years.



Additional existing activities help improve the management of solid waste in Greene County. A volunteer run waste exchange program makes clothing and other re-usable items available to the public at no charge. A retailer periodically takes a truck to the county containing off-merchandise for people to take items free of charge. Trash cans help reduce litter in the Town of Stanardsville, and a major volunteer county-wide road cleanup is held every spring.

GOALS AND IMPLEMENTATION STRATEGIES: SOLID WASTE

- Provide residents with convenient cost effective solid waste management and recycling services.
 - Ensure that solid waste generated in Greene County is collected, processed, and disposed of in a manner that is consistent with TJPDC's Regional Solid Waste Management Plan and the waste management hierarchy.
 - Continue to maintain a 25% minimum recycling rate by providing recycling facilities to county residents



- Examine the feasibility and demand for additional convenience type recycling centers at additional locations in the county.
- o Promote recycling and proper solid waste disposal through advertising and education
- Encourage new development to include recycling in addition to solid waste collection services
- Participate in TJPDC's Regional Solid Waste Planning efforts to promote the region's household hazardous waste collection days
 - Continue to participate in the annual regional recycling rate report
 - Continue to participate in the Thomas Jefferson Regional Solid Waste Planning Unit
 - o Identify grant monies to participate in hazardous waste collection days
- Limit the burning of household trash to the extent possible
 - Comply with state codes and regulations on the burning of trans
 - Provide affordable accessible waste disposal options at the County transfer station or county convenience centers.
- Continue to manage and operate the solid waste facility efficiently and within budget goals
 - Improve signage at facility, including clear labeling of recycling bins for different materials

FUNDING STRATEGIES

The implementation strategies presented for each of the chapters in this Comprehensive Plan offer a practical guide for meeting the goals determined by the plan. A selection of potential funding sources is provided that are relevant to achieving many of the strategies. Greene County may wish to seek grant writing capability to assist each department with their funding needs.

Community Development Block Grants are federal funds offered through the US Department of Housing and Urban Development to ensure decent affordable housing, to provide services to the most vulnerable in our communities, and to create jobs through the expansion and retention of businesses. Greene County, based on its population, would be eligible for non-entitlement funds, which are distributed by the Virginia Department of Housing and Community Development on a competitive basis. Applicants are selected based on criteria involving poverty levels and quality of housing stock, and not less than 70 percent of CDBG funds must be used for activities that benefit low- and moderate-income persons or address slums and blighted conditions.

Proffers collected from developers are voluntary payments made to localities to offset any expected adverse impacts from a proposed development. Proffers may include direct infrastructure improvements, or they can be cash proffers that may be used by Greene County for projects of their own discretion.

Safe Routes to School (SRTS) exists to "enable and encourage children, including those with disabilities, to walk and bicycle to school." Funding is distributed by VDOT for both a preliminary planning phase and a secondary implementation phase. Projects can be program-based or include infrastructure improvements.

Transportation Enhancement Program (TEP) is intended to encourage alternative transportation projects, such as bicycle and pedestrian facilities, beautification projects, and environmental mitigation. Funds are administered through VDOT as a reimbursement to localities for up to 80% of eligible project costs.

VDOT Primary and Secondary System of State Highways is a primary funding mechanism from Virginia Department of Transportation. Roads that meet VDOT's acceptance criteria for either primary or secondary roads are eligible to receive state maintenance funds. The most recent criteria became effective in July, 2009. Often developers petition for inclusion of new roads for VDOT maintenance, but existing roads can also be added to the state list through action by the Board of Supervisors.

VDOT Rural Additions Funds apply to special cases of secondary streets. VDOT allows eligible counties to use 5% of allocated Secondary Street Funds to improve rural roads that do not currently meet VDOT's acceptance criteria for state maintenance and that have been in service since before 1992.

Rural Rustic Road Program (RRRP) allows rural roads already accepted into VDOT's Secondary road network to be eligible for funds to allow paving or widening. An application must be initiated by the county Board of Supervisors.

Federal Transit Administration (FTA) grants can be applied to new transit systems. Many grants may be dispersed directly to local governments. Relevant programs may include but not be limited to programs for Rural and Small Urban Areas, Bus and Bus Facilities, Rural Transit Assistance Program, and New Freedom Program for persons with disabilities. Application procedures are different for each grant.

VDOT Revenue Sharing Program. VDOT accepts applications from localities for additional state funds to match local funds for specific transportation projects. Construction, reconstruction, or improvement projects can be submitted by the Board of Supervisors for evaluation.

Highway Safety Improvement Program (HSIP) is a federal program established in 2005 to help reduce traffic fatalities and injuries nationwide. HSIP disperses \$220 million a year to improve the safety of railway crossings and another \$90 million for the High Risk Rural Roads program. Bicycle and pedestrian safety grants are also awarded. VDOT administers these funds and accepts applications from localities. Preference is given to projects with low costs that target high crash sites.

Forest Legacy Program (FLP) from the U.S. Department of Agriculture is used to protect privately held working forestry lands with easements or other agreements. Landowners can collaborate with local governments and the Virginia Department of Forestry to apply for this federal grant.

Urban and Community Forestry Challenge Cost Share Grant Program provides monies through the U.S. Forest Service for forest management and conservation practices. Separate grants are awarded for innovative projects and best practices. Projects selected are local endeavors that are national or widespread in their impact or application.

Department of Agriculture Grants are federal programs to assist agribusiness channeled through Virginia Department of Agriculture and Consumer Services. Most grants are made directly to businesses or land owners, but in some cases a local government can collaborate with a business or non-profit in applying for a grant.

Virginia Enterprise Zone Program is available through the Virginia Department of Housing and Community Development. The Virginia Enterprise Zone program is a partnership between state and local government that stimulates job creation and private investment within designated areas throughout the state. There are currently 50 Enterprise Zones in the Commonwealth, including the Town of Orange and Waynesboro. Incentives are categorized into Job Creation Grants and Real Property Investment Grants.

Virginia Main Street Program is available through the Virginia Department of Housing and Community Development. The purpose of the program is to revitalize the economic vitality of downtown commercial districts, particularly in smaller towns. While the program does not provide funds, it does provide no charge technical assistance in marketing, design, and economic development training.

Department of Education Grants The Virginia Department of Education offers an array of grants to local school boards and localities. Seventeen separate federal grants can be viewed and applied for via the Department's OMEGA website. In addition, grants are available for adult instruction towards GEDs or general literacy.

Virginia Land Conservation Foundation (VLCF) is a program run by Virginia Department of Conservation and Recreation. The VLCF offers matching grants to localities for the purchase of land or easements for

the purpose of conservation. Land can be used either for farmlands and forest preservation, historic area preservation, natural area protection, or open spaces and parks. 16 grantees were selected in 2009, including a grant for the purchase of Fray Tract directly north of Greene in Madison County.

Water Quality Improvement Fund (WQIF) Regional Grants Program, from the Virginia Department of Forestry, to improve water quality by restoring and/or improving riparian health through the use of tree plantings or other vegetative techniques. It may include riparian buffer tree planting, stream restoration and stabilization, rain gardens and eligible stream tree planting. Local governments may apply for this 50% matching grant, and volunteer labor can be counted toward the local match.

Virginia Outdoors Fund, through the Virginia Department of Conservation and Recreation, is made available to localities for acquisition and development of public outdoor recreation areas and facilities. This is a reimbursement program for up to 50% of the total costs of land acquisition and improvements.

Virginia Recreational Trails Fund is available to counties. The Virginia Department of Conservation and Recreation administers federal Highway Administration funds set aside specifically for trails or trail facilities. The fund is used for motorized or non-motorized trails, although the largest portion is allocated to multi-use trails. Up to 80% of the costs incurred by the county for trail construction or maintenance are eligible for reimbursement by Virginia DCR. The primary purpose is to promote recreational trails, but they may also serve a secondary transportation purpose. This is the largest grant opportunity for greenway projects.

User Fees may be charged based on the level of use for a special government facility or park.

Naming Rights or **Sponsorship** can be offered to local businesses, philanthropists, and others in exchange for providing funds.

Private Foundation Grants from many non-profit 501(c)(3) organizations can assist to fund a variety of activities in Greene County. The following are some major examples:

Bikes Belong Coalition: "funding important and influential projects that leverage federal funding and build momentum for bicycling in communities across the U.S"

Kodak American Greenways Program (Eastman Kodak Company, National Geographic Society, and Conservation Fund partnership): "provides small grants to land trusts, watershed organizations, local governments and others seeking to create or enhance greenways in communities throughout America."

National Trails Fund (From American Hiking Society): "help give local organizations the resources they need to secure access, volunteers, tools, and materials to protect America's cherished hiking trails."

Local Volunteer Labor. Sometimes county governments are able to leverage significant local volunteer labor for projects that are of public interest. Working on trails or greenways could be attractive if it is viewed as a fun recreational activity and community celebration in its own right. Volunteer labor may sometimes be counted, depending on the program, toward a local match for assistance funds.

Possible alternative sources: AmeriCorps Volunteers, Eagle Scout Projects for Boy Scouts of America, Juvenile and Minimum-Security Offender Programs, events such as trail runs or music festivals. Military units are often willing to assist with projects on or near federal land.

Civil War Battlefield Acquisition Grants from the Land and Water Conservation Fund can be used by localities to acquire and preserve threatened Civil War battlefield land.

State Historic Preservation Grants are issued by the Virginia Department of Historic Resources. Local governments are eligible to receive historic preservation funds for the restoration or rehabilitation of historic buildings or maintenance and operations of sites of historic significance. The grant requires a 50% match, and can be used for sites that are in or eligible for the list of Virginia Landmarks Register.